

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SW SW SEC. 28 T5N R67W 6th P.M.  
KINZER 28H-212**

**ORIGINAL WELLBORE  
PROPOSAL #2**

## **Anticollision Report**

**25 March, 2016**



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.0usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0 us	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	25/03/2016		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,971.6	PROPOSAL #2 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SW SW SEC. 28 T5N R67W 6th P.M.						
ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 -	11,411.7	6,853.9	1,107.0	841.9	4.177	CC, ES
ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 -	11,500.0	6,853.4	1,110.5	843.0	4.152	SF
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	10,734.2	6,876.4	415.3	289.8	3.310	CC, ES
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	10,800.0	6,875.8	420.5	293.2	3.304	SF
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	7,977.9	7,003.0	990.4	937.7	18.791	CC
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	8,000.0	7,003.0	990.7	937.4	18.607	ES
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	8,500.0	7,002.3	1,119.6	1,053.6	16.971	SF
EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1	571.1	570.0	369.2	366.9	158.000	CC
EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1	600.0	598.9	369.3	366.8	149.698	ES
EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1	9,300.0	6,846.2	2,116.6	2,026.9	23.597	SF
EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1	9,973.6	6,874.6	428.7	203.2	1.901	CC, ES
EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1	10,000.0	6,874.5	429.6	203.3	1.899	SF
EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1	9,870.7	6,825.3	1,265.3	1,042.1	5.669	CC
EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1	9,900.0	6,825.1	1,265.7	1,041.7	5.651	ES
EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1	10,100.0	6,823.9	1,285.9	1,056.5	5.604	SF
EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1	11,442.3	6,795.7	1,079.3	813.0	4.053	CC
EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1	11,500.0	6,795.4	1,080.8	812.9	4.035	ES
EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1	11,600.0	6,794.8	1,090.7	820.1	4.030	SF
EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1	11,556.3	6,855.0	429.0	159.9	1.594	CC, ES, SF
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,397.3	6,881.0	1,562.0	1,297.1	5.897	CC
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,400.0	6,881.0	1,562.0	1,297.0	5.895	ES
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,700.0	6,879.1	1,591.0	1,317.7	5.822	SF
EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1	7,239.2	6,809.4	512.3	355.0	3.257	CC
EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1	7,250.0	6,811.3	512.5	355.0	3.254	ES, SF
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	500.0	492.5	375.2	364.7	35.658	CC
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	900.0	891.2	379.7	360.2	19.457	ES
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	7,500.0	6,777.7	1,284.9	1,123.2	7.945	SF
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	7,844.6	6,861.6	2,126.3	1,956.1	12.494	CC
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	7,900.0	6,861.3	2,127.0	1,955.5	12.403	ES
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	8,500.0	6,857.6	2,225.0	2,038.4	11.925	SF
EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1	7,782.9	6,827.2	32.9	-3.6	0.901	Level 1, CC, ES, SF
EXIST VERT KINZER 28-1 - Wellbore #1 - Design #1	7,295.5	6,859.5	1,543.3	1,384.6	9.719	CC
EXIST VERT KINZER 28-1 - Wellbore #1 - Design #1	7,300.0	6,860.0	1,543.4	1,384.5	9.715	ES
EXIST VERT KINZER 28-1 - Wellbore #1 - Design #1	7,600.0	6,862.1	1,573.1	1,408.4	9.553	SF
EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1	8,872.9	6,846.3	202.8	6.4	1.033	Level 2, CC, ES, SF
EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1	8,630.6	6,804.8	1,181.6	992.2	6.236	CC, ES
EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1	8,800.0	6,803.8	1,193.7	999.8	6.155	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW SW SEC. 28 T5N R67W 6th P.M.						
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	8,705.6	6,878.4	1,361.3	1,170.1	7.120	CC, ES
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	9,000.0	6,876.6	1,392.7	1,193.7	6.998	SF
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	10,054.2	6,884.2	1,554.5	1,447.4	14.525	CC
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	10,100.0	6,883.9	1,555.1	1,446.9	14.362	ES
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	10,700.0	6,880.2	1,683.3	1,558.4	13.481	SF
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSA	300.0	300.0	30.7	29.6	28.033	CC
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSA	400.0	399.8	30.9	29.4	20.060	ES
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSA	11,971.6	12,140.7	581.9	291.4	2.003	SF
KINZER 28G-332 - ORIGINAL WELLBORE - PROPOSA	400.0	400.0	13.9	12.4	9.030	CC
KINZER 28G-332 - ORIGINAL WELLBORE - PROPOSA	11,971.6	12,133.9	287.4	10.4	1.037	Level 2, ES, SF
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSA	500.0	500.0	30.7	28.7	15.384	CC
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSA	600.0	600.0	31.1	28.6	12.733	ES
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSA	11,971.6	11,880.8	550.9	261.9	1.906	SF
KINZER 28H-302 - ORIGINAL WELLBORE - PROPOSA	500.0	500.0	16.7	14.7	8.391	CC
KINZER 28H-302 - ORIGINAL WELLBORE - PROPOSA	11,971.6	11,999.0	271.0	-12.0	0.958	Level 1, ES, SF
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSA	500.0	500.0	44.6	42.6	22.377	CC
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSA	600.0	600.0	45.0	42.6	18.435	ES
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSA	11,971.6	12,054.1	904.1	621.6	3.200	SF
KINZER 28I-202 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	75.2	73.2	37.761	CC
KINZER 28I-202 - ORIGINAL WELLBORE - PROPOSAL	600.0	600.0	75.6	73.2	30.987	ES
KINZER 28I-202 - ORIGINAL WELLBORE - PROPOSAL	11,971.6	11,836.9	1,552.8	1,263.2	5.361	SF
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	61.3	59.3	30.768	CC
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	600.0	600.0	61.7	59.3	25.281	ES
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	11,971.6	11,938.6	1,219.7	930.1	4.212	SF

Offset Design										SW SW SEC. 28 T5N R67W 6th P.M. - ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 - Desig				Offset Site Error:		0.0 usft	
Survey Program: 0-INC												Offset Well Error:		0.0 usft			
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
0.0	0.0	92.5	92.5	0.0	0.0	87.40	202.2	4,461.4	4,466.0								
100.0	100.0	192.5	192.5	0.1	1.2	87.40	202.2	4,461.4	4,466.0	4,464.8	1.25	3,559.062					
200.0	200.0	292.5	292.5	0.3	3.4	87.40	202.2	4,461.4	4,466.0	4,462.3	3.68	1,213.378					
300.0	300.0	392.5	392.5	0.5	5.5	87.40	202.2	4,461.4	4,466.0	4,460.0	6.00	744.611					
400.0	400.0	492.5	492.5	0.8	7.5	87.40	202.2	4,461.4	4,466.0	4,457.7	8.27	540.214					
500.0	500.0	592.5	592.5	1.0	9.5	87.40	202.2	4,461.4	4,466.0	4,455.5	10.52	424.453					
600.0	600.0	692.5	692.5	1.2	11.5	100.14	202.2	4,461.4	4,466.3	4,453.5	12.77	349.802					
700.0	699.8	792.3	792.3	1.5	13.6	100.19	202.2	4,461.4	4,467.2	4,452.2	15.01	297.617					
800.0	799.5	892.0	892.0	1.7	15.6	100.27	202.2	4,461.4	4,468.8	4,451.5	17.26	258.975					
900.0	898.7	991.2	991.2	1.9	17.6	100.38	202.2	4,461.4	4,471.0	4,451.5	19.51	229.117					
1,000.0	997.5	1,090.0	1,090.0	2.2	19.6	100.51	202.2	4,461.4	4,473.9	4,452.1	21.79	205.285					
1,100.0	1,095.6	1,188.1	1,188.1	2.6	21.5	100.68	202.2	4,461.4	4,477.4	4,453.3	24.10	185.779					
1,200.0	1,193.1	1,285.6	1,285.6	3.0	23.5	100.87	202.2	4,461.4	4,481.7	4,455.3	26.44	169.499					
1,289.7	1,279.7	1,372.2	1,372.2	3.4	25.2	101.06	202.2	4,461.4	4,486.3	4,457.7	28.57	157.029					
1,300.0	1,289.6	1,382.1	1,382.1	3.4	25.4	101.09	202.2	4,461.4	4,486.8	4,458.0	28.82	155.698					
1,400.0	1,385.9	1,478.4	1,478.4	3.9	27.4	101.42	202.2	4,461.4	4,492.4	4,461.1	31.23	143.859					
1,500.0	1,482.1	1,574.6	1,574.6	4.4	29.3	101.75	202.2	4,461.4	4,498.0	4,464.4	33.65	133.662					
1,600.0	1,578.3	1,670.8	1,670.8	4.9	31.3	102.08	202.2	4,461.4	4,503.9	4,467.8	36.09	124.807					
1,700.0	1,674.5	1,767.0	1,767.0	5.5	33.2	102.40	202.2	4,461.4	4,509.8	4,471.3	38.53	117.056					
1,800.0	1,770.8	1,863.3	1,863.3	6.0	35.1	102.73	202.2	4,461.4	4,516.0	4,475.0	40.97	110.220					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,900.0	1,867.0	1,959.5	1,959.5	6.5	37.1	103.05	202.2	4,461.4	4,522.3	4,478.9	43.42	104.151	
2,000.0	1,963.2	2,055.7	2,055.7	7.1	39.0	103.38	202.2	4,461.4	4,528.7	4,482.9	45.87	98.729	
2,100.0	2,059.4	2,151.9	2,151.9	7.6	40.9	103.70	202.2	4,461.4	4,535.3	4,487.0	48.32	93.857	
2,200.0	2,155.7	2,248.2	2,248.2	8.1	42.9	104.02	202.2	4,461.4	4,542.1	4,491.3	50.77	89.459	
2,300.0	2,251.9	2,344.4	2,344.4	8.7	44.8	104.34	202.2	4,461.4	4,549.0	4,495.8	53.22	85.468	
2,400.0	2,348.1	2,440.6	2,440.6	9.2	46.7	104.66	202.2	4,461.4	4,556.1	4,500.4	55.68	81.832	
2,500.0	2,444.3	2,536.8	2,536.8	9.8	48.7	104.98	202.2	4,461.4	4,563.3	4,505.2	58.13	78.506	
2,600.0	2,540.6	2,633.1	2,633.1	10.3	50.6	105.30	202.2	4,461.4	4,570.7	4,510.1	60.58	75.453	
2,700.0	2,636.8	2,729.3	2,729.3	10.9	52.6	105.62	202.2	4,461.4	4,578.2	4,515.2	63.03	72.640	
2,800.0	2,733.0	2,825.5	2,825.5	11.4	54.5	105.93	202.2	4,461.4	4,585.8	4,520.4	65.47	70.041	
2,900.0	2,829.2	2,921.7	2,921.7	12.0	56.4	106.25	202.2	4,461.4	4,593.7	4,525.7	67.92	67.633	
3,000.0	2,925.5	3,018.0	3,018.0	12.5	58.4	106.56	202.2	4,461.4	4,601.6	4,531.3	70.37	65.396	
3,100.0	3,021.7	3,114.2	3,114.2	13.1	60.3	106.87	202.2	4,461.4	4,609.7	4,536.9	72.81	63.313	
3,200.0	3,117.9	3,210.4	3,210.4	13.6	62.2	107.19	202.2	4,461.4	4,618.0	4,542.7	75.25	61.368	
3,300.0	3,214.1	3,306.6	3,306.6	14.2	64.2	107.50	202.2	4,461.4	4,626.4	4,548.7	77.69	59.548	
3,400.0	3,310.4	3,402.9	3,402.9	14.7	66.1	107.81	202.2	4,461.4	4,634.9	4,554.8	80.13	57.843	
3,500.0	3,406.6	3,499.1	3,499.1	15.3	68.0	108.12	202.2	4,461.4	4,643.6	4,561.1	82.57	56.241	
3,600.0	3,502.8	3,595.3	3,595.3	15.8	70.0	108.42	202.2	4,461.4	4,652.5	4,567.5	85.00	54.733	
3,700.0	3,599.0	3,691.5	3,691.5	16.4	71.9	108.73	202.2	4,461.4	4,661.4	4,574.0	87.44	53.313	
3,800.0	3,695.3	3,787.8	3,787.8	17.0	73.8	109.04	202.2	4,461.4	4,670.5	4,580.7	89.87	51.972	
3,900.0	3,791.5	3,884.0	3,884.0	17.5	75.8	109.34	202.2	4,461.4	4,679.8	4,587.5	92.30	50.704	
4,000.0	3,887.7	3,980.2	3,980.2	18.1	77.7	109.64	202.2	4,461.4	4,689.2	4,594.5	94.72	49.504	
4,100.0	3,983.9	4,076.4	4,076.4	18.6	79.6	109.95	202.2	4,461.4	4,698.7	4,601.6	97.15	48.366	
4,200.0	4,080.2	4,172.7	4,172.7	19.2	81.6	110.25	202.2	4,461.4	4,708.4	4,608.8	99.57	47.286	
4,300.0	4,176.4	4,268.9	4,268.9	19.7	83.5	110.55	202.2	4,461.4	4,718.2	4,616.2	101.99	46.260	
4,400.0	4,272.6	4,365.1	4,365.1	20.3	85.5	110.85	202.2	4,461.4	4,728.2	4,623.7	104.41	45.284	
4,500.0	4,368.8	4,461.3	4,461.3	20.8	87.4	111.14	202.2	4,461.4	4,738.2	4,631.4	106.83	44.353	
4,600.0	4,465.1	4,557.6	4,557.6	21.4	89.3	111.44	202.2	4,461.4	4,748.5	4,639.2	109.24	43.467	
4,700.0	4,561.3	4,653.8	4,653.8	21.9	91.3	111.73	202.2	4,461.4	4,758.8	4,647.2	111.66	42.620	
4,800.0	4,657.5	4,750.0	4,750.0	22.5	93.2	112.03	202.2	4,461.4	4,769.3	4,655.2	114.07	41.812	
4,900.0	4,753.7	4,846.2	4,846.2	23.1	95.1	112.32	202.2	4,461.4	4,779.9	4,663.4	116.47	41.038	
5,000.0	4,850.0	4,942.5	4,942.5	23.6	97.1	112.61	202.2	4,461.4	4,790.7	4,671.8	118.88	40.298	
5,100.0	4,946.2	5,038.7	5,038.7	24.2	99.0	112.90	202.2	4,461.4	4,801.5	4,680.2	121.28	39.589	
5,200.0	5,042.4	5,134.9	5,134.9	24.7	100.9	113.19	202.2	4,461.4	4,812.5	4,688.9	123.68	38.910	
5,300.0	5,138.6	5,231.1	5,231.1	25.3	102.9	113.48	202.2	4,461.4	4,823.7	4,697.6	126.08	38.258	
5,400.0	5,234.9	5,327.4	5,327.4	25.8	104.8	113.77	202.2	4,461.4	4,834.9	4,706.5	128.48	37.632	
5,426.2	5,260.1	5,352.6	5,352.6	26.0	105.3	113.84	202.2	4,461.4	4,837.9	4,708.8	129.11	37.472	
5,500.0	5,331.3	5,423.8	5,423.8	26.3	106.7	114.19	202.2	4,461.4	4,845.9	4,715.0	130.92	37.014	
5,600.0	5,428.7	5,521.2	5,521.2	26.7	108.7	114.61	202.2	4,461.4	4,855.7	4,722.4	133.30	36.425	
5,700.0	5,526.7	5,619.2	5,619.2	27.0	110.7	114.97	202.2	4,461.4	4,864.0	4,728.4	135.66	35.854	
5,800.0	5,625.4	5,717.9	5,717.9	27.3	112.7	115.27	202.2	4,461.4	4,871.0	4,733.0	137.99	35.300	
5,900.0	5,724.6	5,817.1	5,817.1	27.6	114.7	115.50	202.2	4,461.4	4,876.5	4,736.2	140.28	34.764	
6,000.0	5,824.1	5,916.6	5,916.6	27.8	116.7	115.67	202.2	4,461.4	4,880.5	4,738.0	142.51	34.246	
6,100.0	5,924.0	6,016.5	6,016.5	28.0	118.7	115.78	202.2	4,461.4	4,883.0	4,738.3	144.70	33.745	
6,200.0	6,023.9	6,116.4	6,116.4	28.1	120.7	115.82	202.2	4,461.4	4,884.0	4,737.2	146.83	33.262	
6,215.9	6,039.8	6,132.3	6,132.3	28.1	121.0	103.10	202.2	4,461.4	4,884.0	4,744.1	139.97	34.894	
6,245.9	6,069.8	6,162.3	6,162.3	28.1	121.6	103.10	202.2	4,461.4	4,884.0	4,743.4	140.61	34.734	
6,250.0	6,073.9	6,166.4	6,166.4	28.1	121.7	13.10	202.2	4,461.4	4,884.0	4,736.1	147.88	33.027	
6,300.0	6,123.9	6,216.4	6,216.4	28.2	122.7	13.14	202.2	4,461.4	4,882.0	4,733.6	148.47	32.881	
6,350.0	6,173.6	6,266.1	6,266.1	28.2	123.7	13.26	202.2	4,461.4	4,876.7	4,728.3	148.37	32.869	
6,400.0	6,222.7	6,315.2	6,315.2	28.2	124.7	13.44	202.2	4,461.4	4,867.9	4,720.4	147.55	32.992	
6,450.0	6,271.2	6,363.7	6,363.7	28.2	125.6	13.71	202.2	4,461.4	4,855.9	4,709.9	146.02	33.255	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,500.0	6,318.6	6,411.1	6,411.1	28.2	126.6	14.06	202.2	4,461.4	4,840.6	4,696.8	143.79	33.665	
6,550.0	6,364.9	6,457.4	6,457.4	28.2	127.5	14.51	202.2	4,461.4	4,822.1	4,681.2	140.87	34.231	
6,600.0	6,409.7	6,502.2	6,502.2	28.2	128.4	15.07	202.2	4,461.4	4,800.5	4,663.2	137.30	34.964	
6,650.0	6,452.8	6,545.3	6,545.3	28.2	129.3	15.75	202.2	4,461.4	4,776.0	4,642.8	133.13	35.875	
6,700.0	6,494.1	6,586.6	6,586.6	28.2	130.1	16.57	202.2	4,461.4	4,748.5	4,620.1	128.42	36.977	
6,750.0	6,533.3	6,625.8	6,625.8	28.2	130.9	17.57	202.2	4,461.4	4,718.4	4,595.1	123.29	38.272	
6,800.0	6,570.3	6,662.8	6,662.8	28.2	131.7	18.77	202.2	4,461.4	4,685.7	4,567.8	117.88	39.750	
6,850.0	6,604.8	6,697.3	6,697.3	28.2	132.4	20.23	202.2	4,461.4	4,650.6	4,538.1	112.41	41.371	
6,900.0	6,636.7	6,729.2	6,729.2	28.2	133.0	22.02	202.2	4,461.4	4,613.2	4,506.0	107.20	43.034	
6,950.0	6,665.8	6,758.3	6,758.3	28.2	133.6	24.22	202.2	4,461.4	4,573.8	4,471.1	102.70	44.536	
7,000.0	6,692.1	6,784.6	6,784.6	28.2	134.1	26.97	202.2	4,461.4	4,532.5	4,433.0	99.55	45.530	
7,050.0	6,715.3	6,807.8	6,807.8	28.2	134.6	30.43	202.2	4,461.4	4,489.6	4,391.0	98.60	45.535	
7,100.0	6,735.4	6,827.9	6,827.9	28.2	135.0	34.85	202.2	4,461.4	4,445.2	4,344.4	100.83	44.085	
7,150.0	6,752.2	6,844.7	6,844.7	28.3	135.3	40.58	202.2	4,461.4	4,399.7	4,292.5	107.18	41.051	
7,200.0	6,765.7	6,858.2	6,858.2	28.3	135.6	48.05	202.2	4,461.4	4,353.1	4,235.1	118.02	36.886	
7,250.0	6,775.8	6,868.3	6,868.3	28.4	135.8	57.73	202.2	4,461.4	4,305.8	4,173.3	132.46	32.506	
7,300.0	6,782.5	6,875.0	6,875.0	28.6	135.9	69.85	202.2	4,461.4	4,257.9	4,110.5	147.41	28.885	
7,350.0	6,785.7	6,878.2	6,878.2	28.8	136.0	83.89	202.2	4,461.4	4,209.8	4,052.1	157.62	26.708	
7,375.3	6,786.0	6,878.5	6,878.5	29.0	136.0	91.28	202.2	4,461.4	4,185.4	4,026.0	159.44	26.251	
7,400.0	6,785.8	6,878.3	6,878.3	29.1	136.0	91.27	202.2	4,461.4	4,161.5	4,001.7	159.88	26.029	
7,500.0	6,785.2	6,877.7	6,877.7	30.0	136.0	91.24	202.2	4,461.4	4,065.2	3,903.4	161.79	25.126	
7,600.0	6,784.6	6,877.1	6,877.1	31.2	136.0	91.20	202.2	4,461.4	3,969.1	3,805.2	163.86	24.223	
7,700.0	6,784.0	6,876.5	6,876.5	32.8	136.0	91.17	202.2	4,461.4	3,873.2	3,707.1	166.04	23.327	
7,800.0	6,783.4	6,875.9	6,875.9	34.7	135.9	91.14	202.2	4,461.4	3,777.5	3,609.1	168.31	22.443	
7,900.0	6,782.8	6,875.3	6,875.3	36.8	135.9	91.11	202.2	4,461.4	3,682.0	3,511.3	170.66	21.575	
8,000.0	6,782.2	6,874.7	6,874.7	39.1	135.9	91.08	202.2	4,461.4	3,586.7	3,413.6	173.07	20.724	
8,100.0	6,781.6	6,874.1	6,874.1	41.4	135.9	91.05	202.2	4,461.4	3,491.7	3,316.2	175.54	19.892	
8,200.0	6,780.9	6,873.4	6,873.4	43.8	135.9	91.01	202.2	4,461.4	3,397.0	3,219.0	178.04	19.080	
8,300.0	6,780.3	6,872.8	6,872.8	46.2	135.9	90.98	202.2	4,461.4	3,302.7	3,122.1	180.58	18.289	
8,400.0	6,779.7	6,872.2	6,872.2	48.7	135.9	90.95	202.2	4,461.4	3,208.6	3,025.5	183.15	17.519	
8,500.0	6,779.1	6,871.6	6,871.6	51.2	135.9	90.92	202.2	4,461.4	3,115.0	2,929.2	185.74	16.770	
8,600.0	6,778.5	6,871.0	6,871.0	53.8	135.8	90.89	202.2	4,461.4	3,021.7	2,833.3	188.36	16.042	
8,700.0	6,777.9	6,870.4	6,870.4	56.4	135.8	90.86	202.2	4,461.4	2,928.9	2,737.9	190.99	15.335	
8,800.0	6,777.3	6,869.8	6,869.8	59.0	135.8	90.82	202.2	4,461.4	2,836.6	2,642.9	193.64	14.649	
8,900.0	6,776.7	6,869.2	6,869.2	61.6	135.8	90.79	202.2	4,461.4	2,744.8	2,548.5	196.30	13.982	
9,000.0	6,776.1	6,868.6	6,868.6	64.2	135.8	90.76	202.2	4,461.4	2,653.6	2,454.6	198.97	13.336	
9,100.0	6,775.5	6,868.0	6,868.0	66.9	135.8	90.73	202.2	4,461.4	2,563.0	2,361.4	201.66	12.710	
9,200.0	6,774.9	6,867.4	6,867.4	69.6	135.8	90.70	202.2	4,461.4	2,473.2	2,268.9	204.35	12.103	
9,300.0	6,774.2	6,866.7	6,866.7	72.2	135.8	90.67	202.2	4,461.4	2,384.2	2,177.2	207.05	11.515	
9,400.0	6,773.6	6,866.1	6,866.1	74.9	135.7	90.63	202.2	4,461.4	2,296.1	2,086.3	209.76	10.946	
9,500.0	6,773.0	6,865.5	6,865.5	77.6	135.7	90.60	202.2	4,461.4	2,209.0	1,996.6	212.47	10.397	
9,600.0	6,772.4	6,864.9	6,864.9	80.3	135.7	90.57	202.2	4,461.4	2,123.1	1,907.9	215.19	9.866	
9,700.0	6,771.8	6,864.3	6,864.3	83.0	135.7	90.54	202.2	4,461.4	2,038.4	1,820.5	217.92	9.354	
9,800.0	6,771.2	6,863.7	6,863.7	85.7	135.7	90.51	202.2	4,461.4	1,955.2	1,734.6	220.64	8.861	
9,900.0	6,770.6	6,863.1	6,863.1	88.5	135.7	90.48	202.2	4,461.4	1,873.6	1,650.3	223.38	8.388	
10,000.0	6,770.0	6,862.5	6,862.5	91.2	135.7	90.44	202.2	4,461.4	1,793.9	1,567.8	226.12	7.934	
10,100.0	6,769.4	6,861.9	6,861.9	93.9	135.7	90.41	202.2	4,461.4	1,716.3	1,487.5	228.86	7.500	
10,200.0	6,768.8	6,861.3	6,861.3	96.7	135.7	90.38	202.2	4,461.4	1,641.2	1,409.6	231.60	7.086	
10,300.0	6,768.2	6,860.7	6,860.7	99.4	135.6	90.35	202.2	4,461.4	1,568.8	1,334.5	234.35	6.694	
10,400.0	6,767.5	6,860.0	6,860.0	102.2	135.6	90.32	202.2	4,461.4	1,499.6	1,262.5	237.10	6.325	
10,500.0	6,766.9	6,859.4	6,859.4	104.9	135.6	90.29	202.2	4,461.4	1,434.1	1,194.2	239.85	5.979	
10,600.0	6,766.3	6,858.8	6,858.8	107.7	135.6	90.26	202.2	4,461.4	1,372.7	1,130.1	242.60	5.658	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 - Desig												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,700.0	6,765.7	6,858.2	6,858.2	110.4	135.6	90.22	202.2	4,461.4	1,316.0	1,070.6	245.36	5.364	
10,800.0	6,765.1	6,857.6	6,857.6	113.2	135.6	90.19	202.2	4,461.4	1,264.7	1,016.6	248.12	5.097	
10,900.0	6,764.5	6,857.0	6,857.0	115.9	135.6	90.16	202.2	4,461.4	1,219.5	968.6	250.88	4.861	
11,000.0	6,763.9	6,856.4	6,856.4	118.7	135.6	90.13	202.2	4,461.4	1,181.0	927.4	253.64	4.656	
11,100.0	6,763.3	6,855.8	6,855.8	121.5	135.5	90.10	202.2	4,461.4	1,150.0	893.6	256.40	4.485	
11,200.0	6,762.7	6,855.2	6,855.2	124.2	135.5	90.07	202.2	4,461.4	1,127.0	867.9	259.17	4.349	
11,300.0	6,762.1	6,854.6	6,854.6	127.0	135.5	90.04	202.2	4,461.4	1,112.6	850.7	261.93	4.248	
11,400.0	6,761.5	6,854.0	6,854.0	129.8	135.5	90.00	202.2	4,461.4	1,107.0	842.3	264.70	4.182	
11,411.7	6,761.4	6,853.9	6,853.9	130.1	135.5	90.00	202.2	4,461.4	1,107.0	841.9	265.02	4.177 CC, ES	
11,500.0	6,760.9	6,853.4	6,853.4	132.5	135.5	89.97	202.2	4,461.4	1,110.5	843.0	267.47	4.152 SF	
11,600.0	6,760.3	6,852.8	6,852.8	135.3	135.5	89.94	202.2	4,461.4	1,122.9	852.6	270.24	4.155	
11,700.0	6,759.6	6,852.1	6,852.1	138.1	135.5	89.91	202.2	4,461.4	1,143.9	870.9	273.01	4.190	
11,800.0	6,759.0	6,851.5	6,851.5	140.8	135.5	89.88	202.2	4,461.4	1,173.1	897.3	275.78	4.254	
11,900.0	6,758.4	6,850.9	6,850.9	143.6	135.4	89.85	202.2	4,461.4	1,209.9	931.3	278.55	4.344	
11,971.6	6,758.0	6,850.5	6,850.5	145.6	135.4	89.82	202.2	4,461.4	1,240.5	960.0	280.53	4.422	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 782-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	91.5	91.5	0.0	0.1	74.69	943.8	3,447.0	3,573.8				
100.0	100.0	192.7	192.7	0.1	0.2	74.69	943.9	3,446.9	3,573.8	3,573.5	0.28	N/A	
200.0	200.0	293.8	293.8	0.3	0.3	74.68	944.0	3,446.8	3,573.7	3,573.1	0.61	5,876.814	
300.0	300.0	394.9	394.9	0.5	0.4	74.68	944.2	3,446.6	3,573.6	3,572.7	0.93	3,836.959	
400.0	400.0	496.1	496.1	0.8	0.5	74.68	944.4	3,446.4	3,573.5	3,572.2	1.25	2,848.237	
500.0	500.0	597.2	597.2	1.0	0.6	74.67	944.7	3,446.2	3,573.3	3,571.7	1.58	2,264.612	
600.0	600.0	698.4	698.3	1.2	0.7	87.42	945.0	3,445.9	3,573.0	3,571.1	1.90	1,880.276	
700.0	699.8	799.2	799.1	1.5	0.8	87.50	945.4	3,445.5	3,572.5	3,570.3	2.24	1,591.626	
800.0	799.5	899.5	899.5	1.7	1.0	87.65	945.7	3,445.2	3,571.9	3,569.2	2.69	1,326.410	
900.0	898.7	1,001.4	1,001.4	1.9	1.2	87.86	946.1	3,444.7	3,571.1	3,568.0	3.16	1,129.679	
1,000.0	997.5	1,098.8	1,098.8	2.2	1.4	88.11	946.5	3,444.3	3,570.2	3,566.6	3.66	974.551	
1,100.0	1,095.6	1,196.6	1,196.6	2.6	1.6	88.42	947.1	3,443.9	3,569.4	3,565.2	4.21	847.894	
1,200.0	1,193.1	1,299.1	1,299.1	3.0	1.8	88.80	947.5	3,443.3	3,568.4	3,563.6	4.81	742.101	
1,289.7	1,279.7	1,387.2	1,387.2	3.4	2.0	89.17	947.7	3,442.9	3,567.6	3,562.2	5.38	662.507	
1,300.0	1,289.6	1,398.2	1,398.2	3.4	2.0	89.22	947.7	3,442.8	3,567.5	3,562.0	5.46	653.829	
1,400.0	1,385.9	1,499.0	1,498.9	3.9	2.2	89.66	947.9	3,442.2	3,566.6	3,560.4	6.15	579.688	
1,500.0	1,482.1	1,592.9	1,592.9	4.4	2.4	90.06	948.0	3,441.6	3,565.9	3,559.0	6.85	520.377	
1,600.0	1,578.3	1,689.5	1,689.4	4.9	2.6	90.49	947.8	3,441.1	3,565.5	3,557.9	7.56	471.366	
1,700.0	1,674.5	1,788.3	1,788.3	5.5	2.8	90.92	947.4	3,440.5	3,565.2	3,556.9	8.29	429.968	
1,783.9	1,755.3	1,867.3	1,867.3	5.9	3.0	91.27	947.2	3,440.0	3,565.0	3,556.1	8.90	400.425	
1,800.0	1,770.8	1,882.0	1,882.0	6.0	3.0	91.34	947.1	3,440.0	3,565.1	3,556.0	9.02	395.249	
1,900.0	1,867.0	2,001.5	2,001.4	6.5	3.3	91.86	947.0	3,439.1	3,565.1	3,555.3	9.81	363.538	
2,000.0	1,963.2	2,106.2	2,106.2	7.1	3.5	92.32	946.5	3,437.7	3,564.6	3,554.1	10.56	337.519	
2,097.0	2,056.6	2,192.9	2,192.8	7.6	3.7	92.70	945.9	3,436.5	3,564.4	3,553.1	11.26	316.509	
2,100.0	2,059.4	2,195.4	2,195.3	7.6	3.7	92.72	945.9	3,436.5	3,564.4	3,553.1	11.28	315.918	
2,200.0	2,155.7	2,296.2	2,296.1	8.1	3.9	93.17	945.0	3,435.4	3,564.6	3,552.6	12.03	296.332	
2,300.0	2,251.9	2,393.2	2,393.1	8.7	4.1	93.60	943.9	3,434.1	3,564.7	3,551.9	12.77	279.119	
2,400.0	2,348.1	2,480.8	2,480.7	9.2	4.3	94.00	942.9	3,433.1	3,565.2	3,551.7	13.49	264.208	
2,500.0	2,444.3	2,564.7	2,564.7	9.8	4.5	94.37	942.2	3,432.3	3,566.2	3,552.0	14.21	250.951	
2,600.0	2,540.6	2,621.0	2,620.9	10.3	4.6	94.62	942.1	3,431.9	3,567.9	3,553.0	14.87	239.895	
2,700.0	2,636.8	2,685.7	2,685.6	10.9	4.7	94.90	942.4	3,432.1	3,570.8	3,555.2	15.55	229.589	
2,800.0	2,733.0	2,740.6	2,740.5	11.4	4.8	95.13	942.9	3,433.1	3,575.1	3,558.9	16.21	220.510	
2,900.0	2,829.2	2,813.0	2,812.9	12.0	5.0	95.44	943.4	3,435.1	3,580.6	3,563.7	16.91	211.777	
3,000.0	2,925.5	2,864.7	2,864.5	12.5	5.1	95.67	943.5	3,437.1	3,587.2	3,569.7	17.56	204.282	
3,100.0	3,021.7	2,908.0	2,907.8	13.1	5.2	95.86	943.5	3,439.1	3,595.0	3,576.9	18.20	197.571	
3,200.0	3,117.9	2,982.2	2,981.9	13.6	5.3	96.19	943.0	3,443.3	3,603.9	3,585.0	18.89	190.738	
3,300.0	3,214.1	3,035.6	3,035.1	14.2	5.4	96.44	942.3	3,447.0	3,614.1	3,594.6	19.55	184.854	
3,400.0	3,310.4	3,098.0	3,097.3	14.7	5.6	96.73	941.3	3,452.2	3,625.8	3,605.5	20.23	179.257	
3,500.0	3,406.6	3,146.5	3,145.6	15.3	5.7	96.96	940.3	3,456.8	3,638.6	3,617.7	20.87	174.313	
3,600.0	3,502.8	3,193.0	3,191.8	15.8	5.8	97.19	938.9	3,461.6	3,652.6	3,631.1	21.52	169.757	
3,700.0	3,599.0	3,256.6	3,254.9	16.4	5.9	97.50	937.1	3,468.8	3,667.9	3,645.7	22.19	165.259	
3,800.0	3,695.3	3,382.0	3,379.5	17.0	6.2	98.07	935.6	3,483.7	3,684.1	3,661.1	22.99	160.225	
3,900.0	3,791.5	3,431.5	3,428.6	17.5	6.3	98.29	935.1	3,489.5	3,700.1	3,676.5	23.64	156.519	
4,000.0	3,887.7	3,481.7	3,478.4	18.1	6.4	98.52	934.4	3,496.0	3,717.6	3,693.3	24.29	153.063	
4,100.0	3,983.9	3,570.0	3,565.9	18.6	6.7	98.92	933.0	3,507.9	3,735.8	3,710.8	25.01	149.353	
4,200.0	4,080.2	3,644.1	3,639.3	19.2	6.8	99.25	931.7	3,518.3	3,754.6	3,728.9	25.71	146.037	
4,300.0	4,176.4	3,742.6	3,736.7	19.7	7.1	99.69	930.0	3,532.2	3,774.0	3,747.5	26.45	142.673	
4,400.0	4,272.6	3,864.1	3,857.1	20.3	7.4	100.22	928.5	3,548.9	3,793.0	3,765.8	27.23	139.280	
4,500.0	4,368.8	3,969.4	3,961.5	20.8	7.7	100.67	927.7	3,562.8	3,811.7	3,783.7	27.98	136.219	
4,600.0	4,465.1	4,063.3	4,054.5	21.4	7.9	101.07	926.5	3,575.0	3,830.6	3,801.9	28.71	133.430	
4,700.0	4,561.3	4,183.9	4,174.1	21.9	8.2	101.59	924.4	3,590.5	3,849.4	3,819.9	29.48	130.557	
4,800.0	4,657.5	4,319.6	4,308.9	22.5	8.6	102.17	922.3	3,606.5	3,867.4	3,837.1	30.29	127.693	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 782-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,753.7	4,488.6	4,477.0	23.1	9.0	102.88	919.5	3,623.9	3,884.1	3,853.0	31.15	124.695	
5,000.0	4,850.0	4,607.3	4,595.2	23.6	9.3	103.37	917.7	3,634.6	3,899.9	3,868.0	31.92	122.196	
5,100.0	4,946.2	4,665.4	4,652.9	24.2	9.5	103.60	916.8	3,639.9	3,916.1	3,883.5	32.57	120.246	
5,200.0	5,042.4	4,737.9	4,725.1	24.7	9.7	103.91	915.4	3,647.4	3,933.4	3,900.1	33.24	118.315	
5,300.0	5,138.6	4,916.4	4,902.8	25.3	10.1	104.63	912.2	3,663.6	3,949.7	3,915.6	34.11	115.777	
5,400.0	5,234.9	4,996.0	4,982.1	25.8	10.3	104.95	910.9	3,670.4	3,965.8	3,931.0	34.80	113.958	
5,426.2	5,260.1	4,996.0	4,982.1	26.0	10.3	104.95	910.9	3,670.4	3,970.1	3,935.2	34.94	113.619	
5,500.0	5,331.3	5,043.1	5,029.0	26.3	10.5	105.38	910.1	3,674.8	3,982.5	3,947.1	35.36	112.638	
5,600.0	5,428.7	5,114.4	5,099.9	26.7	10.6	105.95	908.5	3,682.1	3,999.4	3,963.6	35.84	111.594	
5,700.0	5,526.7	5,262.7	5,247.5	27.0	11.0	106.69	905.0	3,696.4	4,014.9	3,978.5	36.43	110.210	
5,800.0	5,625.4	5,399.8	5,384.1	27.3	11.4	107.29	901.4	3,707.7	4,028.1	3,991.2	36.96	108.974	
5,900.0	5,724.6	5,469.0	5,453.0	27.6	11.6	107.67	899.6	3,713.7	4,040.8	4,003.5	37.33	108.251	
6,000.0	5,824.1	5,597.4	5,580.9	27.8	11.9	108.09	896.3	3,724.2	4,052.0	4,014.2	37.77	107.277	
6,100.0	5,924.0	5,660.0	5,643.3	28.0	12.0	108.35	895.1	3,729.6	4,062.6	4,024.5	38.04	106.788	
6,200.0	6,023.9	5,809.3	5,792.1	28.1	12.4	108.60	891.6	3,741.3	4,071.1	4,032.7	38.46	105.857	
6,215.9	6,039.8	5,820.0	5,802.7	28.1	12.4	95.91	891.3	3,742.1	4,072.4	4,042.3	30.12	135.213	
6,245.9	6,069.8	5,849.0	5,831.6	28.1	12.5	95.92	890.4	3,744.4	4,074.9	4,044.6	30.24	134.772	
6,250.0	6,073.9	5,849.0	5,831.6	28.1	12.5	5.92	890.4	3,744.4	4,075.2	4,036.6	38.59	105.609	
6,300.0	6,123.9	5,879.2	5,861.7	28.2	12.6	5.91	889.5	3,746.9	4,077.4	4,038.8	38.60	105.641	
6,350.0	6,173.6	5,916.0	5,898.3	28.2	12.7	5.93	888.6	3,750.1	4,076.3	4,037.9	38.45	106.006	
6,400.0	6,222.7	5,955.1	5,937.3	28.2	12.8	5.98	887.9	3,753.6	4,071.9	4,033.8	38.15	106.734	
6,450.0	6,271.2	6,000.6	5,982.6	28.2	12.9	6.07	887.5	3,757.8	4,064.2	4,026.5	37.70	107.810	
6,500.0	6,318.6	6,056.6	6,038.3	28.2	13.0	6.18	887.8	3,763.1	4,053.0	4,015.9	37.11	109.223	
6,550.0	6,364.9	6,169.9	6,151.2	28.2	13.3	6.35	889.4	3,772.8	4,038.1	4,001.6	36.48	110.682	
6,600.0	6,409.7	6,530.4	6,511.4	28.2	14.1	6.77	892.3	3,785.7	4,017.1	3,981.0	36.19	111.007	
6,650.0	6,452.8	6,583.6	6,564.5	28.2	14.2	7.10	892.6	3,785.5	3,991.9	3,956.7	35.13	113.643	
6,700.0	6,494.1	6,629.2	6,610.1	28.2	14.3	7.50	892.9	3,785.3	3,963.6	3,929.7	33.92	116.857	
6,750.0	6,533.3	6,667.7	6,648.6	28.2	14.4	7.99	893.1	3,785.0	3,932.5	3,899.9	32.58	120.709	
6,800.0	6,570.3	6,704.0	6,684.9	28.2	14.4	8.58	893.2	3,784.8	3,898.8	3,867.7	31.13	125.230	
6,850.0	6,604.8	6,737.7	6,718.6	28.2	14.5	9.31	893.4	3,784.6	3,862.6	3,833.0	29.60	130.490	
6,900.0	6,636.7	6,769.0	6,749.9	28.2	14.6	10.22	893.5	3,784.5	3,824.2	3,796.2	28.01	136.538	
6,950.0	6,665.8	6,797.5	6,778.4	28.2	14.6	11.37	893.6	3,784.3	3,783.6	3,757.3	26.39	143.387	
7,000.0	6,692.1	6,820.4	6,801.4	28.2	14.7	12.83	893.7	3,784.2	3,741.2	3,716.4	24.78	150.965	
7,050.0	6,715.3	6,840.6	6,821.5	28.2	14.7	14.75	893.8	3,784.1	3,697.1	3,673.8	23.27	158.893	
7,100.0	6,735.4	6,858.0	6,839.0	28.2	14.7	17.37	893.9	3,784.1	3,651.5	3,629.6	21.97	166.212	
7,150.0	6,752.2	6,872.7	6,853.6	28.3	14.7	21.10	893.9	3,784.0	3,604.7	3,583.6	21.12	170.666	
7,200.0	6,765.7	6,884.4	6,865.4	28.3	14.8	26.69	893.9	3,784.0	3,556.9	3,535.7	21.21	167.683	
7,250.0	6,775.8	6,891.0	6,871.9	28.4	14.8	35.62	894.0	3,784.0	3,508.2	3,485.1	23.18	151.370	
7,300.0	6,782.5	6,899.0	6,879.9	28.6	14.8	51.32	894.0	3,784.0	3,459.0	3,430.5	28.51	121.342	
7,350.0	6,785.7	6,901.7	6,882.6	28.8	14.8	77.47	894.0	3,783.9	3,409.5	3,373.4	36.14	94.343	
7,375.3	6,786.0	6,901.9	6,882.8	29.0	14.8	93.70	894.0	3,783.9	3,384.4	3,346.1	38.37	88.214	
7,400.0	6,785.8	6,901.7	6,882.7	29.1	14.8	93.68	894.0	3,783.9	3,359.9	3,321.1	38.81	86.568	
7,500.0	6,785.2	6,901.1	6,882.0	30.0	14.8	93.59	894.0	3,783.9	3,260.7	3,220.0	40.73	80.058	
7,600.0	6,784.6	6,900.4	6,881.3	31.2	14.8	93.49	894.0	3,783.9	3,161.5	3,118.7	42.80	73.876	
7,700.0	6,784.0	6,899.7	6,880.6	32.8	14.8	93.40	894.0	3,784.0	3,062.4	3,017.4	44.98	68.089	
7,800.0	6,783.4	6,899.0	6,879.9	34.7	14.8	93.30	894.0	3,784.0	2,963.4	2,916.1	47.25	62.712	
7,900.0	6,782.8	6,898.3	6,879.3	36.8	14.8	93.21	894.0	3,784.0	2,864.4	2,814.8	49.61	57.741	
8,000.0	6,782.2	6,897.6	6,878.6	39.1	14.8	93.11	894.0	3,784.0	2,765.5	2,713.5	52.02	53.158	
8,100.0	6,781.6	6,896.9	6,877.9	41.4	14.8	93.02	894.0	3,784.0	2,666.7	2,612.2	54.49	48.937	
8,200.0	6,780.9	6,896.2	6,877.2	43.8	14.8	92.92	894.0	3,784.0	2,568.0	2,511.0	57.00	45.050	
8,300.0	6,780.3	6,895.5	6,876.4	46.2	14.8	92.82	894.0	3,784.0	2,469.3	2,409.8	59.55	41.469	
8,400.0	6,779.7	6,891.0	6,871.9	48.7	14.8	92.20	894.0	3,784.0	2,370.8	2,308.7	62.10	38.176	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 782-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	6,779.1	6,891.0	6,871.9	51.2	14.8	92.20	894.0	3,784.0	2,272.4	2,207.7	64.71	35.119	
8,600.0	6,778.5	6,891.0	6,871.9	53.8	14.8	92.20	894.0	3,784.0	2,174.2	2,106.9	67.33	32.291	
8,700.0	6,777.9	6,891.0	6,871.9	56.4	14.8	92.20	894.0	3,784.0	2,076.1	2,006.2	69.97	29.670	
8,800.0	6,777.3	6,891.0	6,871.9	59.0	14.8	92.20	894.0	3,784.0	1,978.3	1,905.6	72.63	27.237	
8,900.0	6,776.7	6,891.0	6,871.9	61.6	14.8	92.20	894.0	3,784.0	1,880.6	1,805.3	75.30	24.974	
9,000.0	6,776.1	6,891.0	6,871.9	64.2	14.8	92.20	894.0	3,784.0	1,783.2	1,705.2	77.99	22.866	
9,100.0	6,775.5	6,891.0	6,871.9	66.9	14.8	92.20	894.0	3,784.0	1,686.1	1,605.4	80.68	20.899	
9,200.0	6,774.9	6,891.0	6,871.9	69.6	14.8	92.20	894.0	3,784.0	1,589.4	1,506.0	83.38	19.061	
9,300.0	6,774.2	6,888.1	6,869.0	72.2	14.8	91.79	894.0	3,784.0	1,493.1	1,407.0	86.08	17.345	
9,400.0	6,773.6	6,887.3	6,868.2	74.9	14.8	91.68	894.0	3,784.0	1,397.3	1,308.5	88.80	15.736	
9,500.0	6,773.0	6,886.5	6,867.4	77.6	14.8	91.57	894.0	3,784.0	1,302.2	1,210.7	91.52	14.228	
9,600.0	6,772.4	6,885.7	6,866.6	80.3	14.8	91.47	893.9	3,784.0	1,207.8	1,113.6	94.25	12.815	
9,700.0	6,771.8	6,884.9	6,865.8	83.0	14.8	91.36	893.9	3,784.0	1,114.5	1,017.5	96.98	11.491	
9,800.0	6,771.2	6,884.1	6,865.0	85.7	14.8	91.25	893.9	3,784.0	1,022.3	922.6	99.72	10.252	
9,900.0	6,770.6	6,883.3	6,864.2	88.5	14.8	91.13	893.9	3,784.0	931.9	829.4	102.46	9.095	
10,000.0	6,770.0	6,882.5	6,863.4	91.2	14.8	91.02	893.9	3,784.0	843.5	738.3	105.21	8.018	
10,100.0	6,769.4	6,881.7	6,862.6	93.9	14.8	90.91	893.9	3,784.0	758.1	650.1	107.96	7.022	
10,200.0	6,768.8	6,880.9	6,861.8	96.7	14.8	90.80	893.9	3,784.0	676.6	565.9	110.71	6.112	
10,300.0	6,768.2	6,880.0	6,861.0	99.4	14.8	90.68	893.9	3,784.0	600.8	487.4	113.46	5.295	
10,400.0	6,767.5	6,879.2	6,860.1	102.2	14.8	90.57	893.9	3,784.0	533.1	416.9	116.22	4.587	
10,500.0	6,766.9	6,878.4	6,859.3	104.9	14.8	90.45	893.9	3,784.0	476.8	357.8	118.98	4.007	
10,600.0	6,766.3	6,877.5	6,858.5	107.7	14.8	90.34	893.9	3,784.0	436.4	314.7	121.74	3.585	
10,700.0	6,765.7	6,876.7	6,857.6	110.4	14.8	90.22	893.9	3,784.0	416.7	292.2	124.50	3.347	
10,734.2	6,765.5	6,876.4	6,857.3	111.4	14.8	90.18	893.9	3,784.0	415.3	289.8	125.45	3.310 CC, ES	
10,800.0	6,765.1	6,875.8	6,856.7	113.2	14.8	90.10	893.9	3,784.0	420.5	293.2	127.27	3.304 SF	
10,900.0	6,764.5	6,875.0	6,855.9	115.9	14.8	89.98	893.9	3,784.0	447.1	317.1	130.03	3.439	
11,000.0	6,763.9	6,874.1	6,855.0	118.7	14.8	89.86	893.9	3,784.0	493.0	360.2	132.80	3.713	
11,100.0	6,763.3	6,873.2	6,854.1	121.5	14.8	89.74	893.9	3,784.0	553.4	417.8	135.57	4.082	
11,200.0	6,762.7	6,872.3	6,853.3	124.2	14.7	89.62	893.9	3,784.0	624.0	485.7	138.33	4.511	
11,300.0	6,762.1	6,871.4	6,852.4	127.0	14.7	89.50	893.9	3,784.0	701.8	560.7	141.10	4.974	
11,400.0	6,761.5	6,870.5	6,851.5	129.8	14.7	89.37	893.9	3,784.0	784.6	640.8	143.87	5.454	
11,500.0	6,760.9	6,869.6	6,850.6	132.5	14.7	89.25	893.9	3,784.0	871.1	724.5	146.64	5.940	
11,600.0	6,760.3	6,868.7	6,849.7	135.3	14.7	89.12	893.9	3,784.0	960.2	810.8	149.41	6.426	
11,700.0	6,759.6	6,867.8	6,848.7	138.1	14.7	89.00	893.9	3,784.0	1,051.2	899.0	152.18	6.908	
11,800.0	6,759.0	6,866.9	6,847.8	140.8	14.7	88.87	893.9	3,784.0	1,143.8	988.8	154.95	7.381	
11,900.0	6,758.4	6,866.0	6,846.9	143.6	14.7	88.74	893.9	3,784.0	1,237.5	1,079.8	157.73	7.846	
11,971.6	6,758.0	6,865.3	6,846.2	145.6	14.7	88.65	893.9	3,784.0	1,305.1	1,145.4	159.71	8.172	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 40-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	81.2	81.2	0.0	0.0	14.64	3,413.6	891.6	3,528.1				
100.0	100.0	183.4	183.4	0.1	0.2	14.64	3,413.4	891.8	3,528.0	3,527.7	0.27	N/A	
200.0	200.0	285.8	285.8	0.3	0.4	14.65	3,413.2	892.0	3,527.9	3,527.1	0.73	4,864.044	
300.0	300.0	388.0	388.0	0.5	0.6	14.65	3,412.9	892.4	3,527.7	3,526.5	1.18	2,989.685	
400.0	400.0	490.2	490.2	0.8	0.9	14.66	3,412.5	892.8	3,527.4	3,525.8	1.63	2,157.811	
500.0	500.0	592.3	592.3	1.0	1.1	14.67	3,412.0	893.4	3,527.1	3,525.0	2.09	1,687.905	
600.0	600.0	699.7	699.7	1.2	1.3	27.44	3,411.4	893.9	3,525.1	3,522.5	2.54	1,387.905	
700.0	699.8	812.9	812.9	1.5	1.5	27.53	3,410.5	893.8	3,519.7	3,516.7	2.99	1,175.655	
800.0	799.5	928.3	928.3	1.7	1.8	27.70	3,409.1	893.7	3,510.7	3,507.3	3.48	1,008.615	
900.0	898.7	1,008.8	1,008.8	1.9	2.0	27.89	3,408.2	893.7	3,498.8	3,494.9	3.87	904.252	
1,000.0	997.5	1,104.6	1,104.5	2.2	2.1	28.14	3,407.5	893.3	3,484.2	3,479.9	4.30	810.607	
1,100.0	1,095.6	2,059.0	2,045.8	2.6	5.0	30.77	3,275.5	901.9	3,453.8	3,447.0	6.83	506.035	
1,200.0	1,193.1	2,254.5	2,232.5	3.0	6.0	32.19	3,218.0	910.5	3,407.8	3,400.1	7.68	443.902	
1,289.7	1,279.7	2,457.2	2,424.0	3.4	7.1	33.85	3,152.2	918.5	3,362.1	3,353.5	8.63	389.475	
1,300.0	1,289.6	2,466.9	2,433.1	3.4	7.2	33.91	3,148.8	918.9	3,356.7	3,348.0	8.70	385.698	
1,400.0	1,385.9	2,541.6	2,503.2	3.9	7.6	34.37	3,123.3	922.1	3,303.9	3,294.6	9.30	355.307	
1,500.0	1,482.1	2,588.4	2,547.2	4.4	7.8	34.66	3,107.6	924.1	3,251.9	3,242.1	9.80	331.680	
1,600.0	1,578.3	2,628.5	2,585.2	4.9	8.0	34.90	3,094.7	925.7	3,201.0	3,190.7	10.30	310.829	
1,700.0	1,674.5	2,720.7	2,672.7	5.5	8.5	35.47	3,065.7	929.2	3,151.1	3,140.1	11.01	286.168	
1,800.0	1,770.8	2,800.0	2,747.7	6.0	8.9	35.98	3,040.4	932.3	3,100.9	3,089.2	11.70	264.931	
1,900.0	1,867.0	2,857.5	2,802.2	6.5	9.2	36.36	3,022.3	934.6	3,051.4	3,039.1	12.30	248.083	
2,000.0	1,963.2	2,898.3	2,841.1	7.1	9.4	36.64	3,009.9	936.3	3,003.1	2,990.2	12.84	233.878	
2,100.0	2,059.4	2,953.9	2,894.3	7.6	9.7	37.01	2,993.8	938.7	2,956.1	2,942.7	13.44	219.911	
2,200.0	2,155.7	3,052.2	2,988.3	8.1	10.2	37.66	2,965.6	942.2	2,909.4	2,895.2	14.24	204.347	
2,300.0	2,251.9	3,123.7	3,056.9	8.7	10.5	38.15	2,945.1	944.5	2,863.0	2,848.1	14.93	191.797	
2,400.0	2,348.1	3,200.0	3,129.9	9.2	10.9	38.69	2,923.5	947.4	2,817.2	2,801.6	15.66	179.907	
2,500.0	2,444.3	3,296.2	3,222.0	9.8	11.5	39.41	2,896.0	951.6	2,771.7	2,755.2	16.52	167.797	
2,600.0	2,540.6	3,422.2	3,342.2	10.3	12.2	40.40	2,858.5	957.1	2,725.5	2,708.0	17.57	155.142	
2,700.0	2,636.8	3,501.1	3,417.1	10.9	12.7	41.06	2,834.3	961.2	2,679.2	2,660.8	18.40	145.573	
2,800.0	2,733.0	3,680.6	3,586.4	11.4	13.8	42.71	2,775.6	971.9	2,632.1	2,612.2	19.90	132.277	
2,900.0	2,829.2	3,795.7	3,693.8	12.0	14.6	43.86	2,734.7	978.6	2,582.9	2,561.8	21.08	122.516	
3,000.0	2,925.5	3,857.7	3,751.7	12.5	14.9	44.48	2,712.8	981.7	2,534.1	2,512.2	21.91	115.677	
3,100.0	3,021.7	3,904.5	3,795.7	13.1	15.2	44.95	2,696.9	983.5	2,486.5	2,463.8	22.63	109.890	
3,200.0	3,117.9	3,942.4	3,831.6	13.6	15.4	45.32	2,684.8	984.7	2,440.7	2,417.4	23.29	104.796	
3,300.0	3,214.1	3,987.7	3,874.8	14.2	15.6	45.75	2,671.3	986.1	2,396.8	2,372.9	23.99	99.900	
3,400.0	3,310.4	4,064.9	3,948.7	14.7	16.1	46.50	2,649.2	988.3	2,354.3	2,329.4	24.90	94.538	
3,500.0	3,406.6	4,133.8	4,014.7	15.3	16.4	47.19	2,629.4	990.8	2,312.4	2,286.7	25.79	89.666	
3,600.0	3,502.8	4,207.3	4,085.1	15.8	16.8	47.97	2,608.4	994.2	2,271.7	2,245.0	26.73	84.991	
3,700.0	3,599.0	4,371.5	4,241.7	16.4	17.8	49.81	2,559.6	1,001.8	2,231.0	2,202.6	28.36	78.666	
3,800.0	3,695.3	4,450.1	4,316.4	17.0	18.2	50.71	2,535.1	1,004.0	2,188.7	2,159.3	29.38	74.498	
3,900.0	3,791.5	4,583.0	4,442.2	17.5	19.0	52.28	2,492.4	1,005.9	2,145.3	2,114.5	30.84	69.572	
4,000.0	3,887.7	4,631.9	4,488.4	18.1	19.3	52.89	2,476.7	1,006.8	2,103.0	2,071.4	31.68	66.384	
4,100.0	3,983.9	4,704.7	4,557.5	18.6	19.7	53.82	2,453.7	1,008.9	2,062.4	2,029.7	32.73	63.018	
4,200.0	4,080.2	4,760.0	4,610.0	19.2	20.0	54.54	2,436.5	1,010.5	2,022.9	1,989.3	33.65	60.108	
4,300.0	4,176.4	4,814.6	4,662.3	19.7	20.3	55.24	2,420.6	1,011.8	1,985.4	1,950.9	34.55	57.467	
4,400.0	4,272.6	4,867.3	4,713.1	20.3	20.6	55.89	2,407.0	1,012.7	1,950.2	1,914.8	35.41	55.074	
4,500.0	4,368.8	4,926.2	4,770.3	20.8	20.8	56.61	2,392.9	1,013.5	1,917.1	1,880.8	36.31	52.799	
4,600.0	4,465.1	4,987.3	4,829.9	21.4	21.1	57.35	2,379.2	1,014.5	1,885.9	1,848.6	37.22	50.666	
4,700.0	4,561.3	5,050.9	4,892.0	21.9	21.3	58.14	2,365.7	1,016.1	1,856.5	1,818.4	38.16	48.651	
4,800.0	4,657.5	5,120.0	4,959.6	22.5	21.6	59.01	2,351.6	1,018.4	1,829.1	1,789.9	39.15	46.722	
4,900.0	4,753.7	5,181.0	5,019.5	23.1	21.8	59.78	2,340.0	1,020.6	1,803.5	1,763.4	40.07	45.009	
5,000.0	4,850.0	5,240.0	5,077.6	23.6	22.1	60.50	2,330.2	1,022.6	1,780.0	1,739.0	40.96	43.457	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 40-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,311.9	5,148.7	24.2	22.3	61.36	2,319.8	1,024.9	1,758.5	1,716.6	41.91	41.955	
5,200.0	5,042.4	5,382.9	5,219.1	24.7	22.5	62.19	2,310.9	1,027.0	1,738.8	1,696.0	42.84	40.587	
5,300.0	5,138.6	5,464.7	5,300.4	25.3	22.7	63.10	2,302.5	1,029.0	1,720.7	1,676.9	43.80	39.287	
5,400.0	5,234.9	5,550.9	5,386.4	25.8	22.9	64.00	2,295.6	1,029.8	1,703.6	1,658.9	44.73	38.083	
5,426.2	5,260.1	5,573.0	5,408.4	26.0	22.9	64.22	2,294.1	1,029.8	1,699.3	1,654.3	44.97	37.787	
5,500.0	5,331.3	5,631.8	5,467.2	26.3	23.0	64.57	2,290.7	1,029.8	1,688.0	1,642.5	45.51	37.092	
5,600.0	5,428.7	5,711.0	5,546.2	26.7	23.1	64.98	2,287.7	1,029.4	1,675.1	1,629.0	46.10	36.333	
5,700.0	5,526.7	5,794.9	5,630.1	27.0	23.3	65.35	2,285.7	1,028.9	1,664.8	1,618.2	46.64	35.692	
5,800.0	5,625.4	5,863.0	5,698.2	27.3	23.3	65.58	2,285.2	1,028.9	1,657.5	1,610.4	47.08	35.208	
5,900.0	5,724.6	5,949.3	5,784.5	27.6	23.4	65.84	2,285.7	1,029.5	1,653.2	1,605.7	47.49	34.812	
6,000.0	5,824.1	6,050.7	5,885.9	27.8	23.5	66.07	2,286.9	1,030.1	1,650.6	1,602.7	47.86	34.489	
6,100.0	5,924.0	6,158.8	5,994.0	28.0	23.6	66.21	2,288.2	1,030.3	1,649.1	1,600.9	48.17	34.236	
6,173.6	5,997.5	6,232.0	6,067.2	28.0	23.7	66.24	2,289.1	1,030.2	1,648.7	1,600.3	48.34	34.107	
6,200.0	6,023.9	6,258.1	6,093.3	28.1	23.7	66.24	2,289.4	1,030.1	1,648.7	1,600.3	48.40	34.067	
6,215.9	6,039.8	6,273.9	6,109.1	28.1	23.7	53.52	2,289.6	1,030.1	1,648.8	1,613.0	35.76	46.103	
6,245.9	6,069.8	6,305.3	6,140.4	28.1	23.7	53.50	2,290.0	1,030.1	1,649.0	1,613.1	35.85	45.993	
6,250.0	6,073.9	6,309.6	6,144.8	28.1	23.7	-36.50	2,290.0	1,030.1	1,649.0	1,600.5	48.49	34.004	
6,300.0	6,123.9	6,362.1	6,197.3	28.2	23.8	-36.63	2,290.7	1,029.9	1,647.6	1,599.1	48.45	34.008	
6,350.0	6,173.6	6,407.7	6,242.8	28.2	23.8	-36.96	2,291.3	1,029.6	1,643.4	1,595.2	48.15	34.130	
6,400.0	6,222.7	6,455.0	6,290.1	28.2	23.9	-37.50	2,292.1	1,029.5	1,636.6	1,589.0	47.62	34.367	
6,450.0	6,271.2	6,517.6	6,352.8	28.2	23.9	-38.37	2,293.1	1,029.1	1,626.9	1,580.1	46.86	34.721	
6,500.0	6,318.6	6,573.2	6,408.4	28.2	24.0	-39.46	2,293.7	1,028.3	1,614.2	1,568.3	45.88	35.183	
6,550.0	6,364.9	6,611.4	6,446.6	28.2	24.0	-40.65	2,294.1	1,027.8	1,599.0	1,554.2	44.73	35.747	
6,600.0	6,409.7	6,650.4	6,485.6	28.2	24.1	-42.09	2,294.5	1,027.5	1,581.6	1,538.2	43.43	36.418	
6,650.0	6,452.8	6,695.4	6,530.5	28.2	24.1	-43.89	2,295.0	1,027.2	1,562.0	1,520.0	42.01	37.187	
6,700.0	6,494.1	6,739.2	6,574.3	28.2	24.2	-45.98	2,295.2	1,027.0	1,540.3	1,499.7	40.52	38.013	
6,750.0	6,533.3	6,776.0	6,611.2	28.2	24.2	-48.27	2,295.3	1,026.9	1,516.6	1,477.5	39.04	38.842	
6,800.0	6,570.3	6,807.8	6,643.0	28.2	24.2	-50.78	2,295.5	1,026.9	1,491.3	1,453.6	37.65	39.607	
6,850.0	6,604.8	6,840.0	6,675.1	28.2	24.3	-53.64	2,295.8	1,026.9	1,464.6	1,428.1	36.42	40.214	
6,900.0	6,636.7	6,864.0	6,699.1	28.2	24.3	-56.57	2,296.1	1,026.9	1,436.7	1,401.2	35.44	40.542	
6,950.0	6,665.8	6,888.2	6,723.3	28.2	24.3	-59.80	2,296.5	1,027.0	1,407.8	1,373.1	34.77	40.491	
7,000.0	6,692.1	6,909.9	6,745.0	28.2	24.3	-63.21	2,297.0	1,027.0	1,378.3	1,343.8	34.46	39.995	
7,050.0	6,715.3	6,930.6	6,765.7	28.2	24.3	-66.81	2,297.5	1,027.1	1,348.3	1,313.8	34.52	39.054	
7,100.0	6,735.4	6,949.7	6,784.8	28.2	24.4	-70.53	2,298.0	1,027.2	1,318.0	1,283.1	34.92	37.746	
7,150.0	6,752.2	6,966.6	6,801.7	28.3	24.4	-74.26	2,298.4	1,027.3	1,287.8	1,252.2	35.57	36.205	
7,200.0	6,765.7	6,981.3	6,816.4	28.3	24.4	-77.94	2,298.8	1,027.4	1,257.9	1,221.5	36.39	34.566	
7,250.0	6,775.8	6,992.3	6,827.4	28.4	24.4	-81.40	2,299.1	1,027.5	1,228.5	1,191.2	37.29	32.948	
7,300.0	6,782.5	6,999.7	6,834.8	28.6	24.4	-84.57	2,299.2	1,027.5	1,200.0	1,161.8	38.20	31.416	
7,350.0	6,785.7	7,003.3	6,838.4	28.8	24.4	-87.39	2,299.3	1,027.5	1,172.6	1,133.6	39.09	29.999	
7,375.3	6,786.0	7,003.8	6,838.9	29.0	24.4	-88.67	2,299.3	1,027.5	1,159.3	1,119.8	39.53	29.329	
7,400.0	6,785.8	7,003.7	6,838.8	29.1	24.4	-88.67	2,299.3	1,027.5	1,146.7	1,106.7	39.98	28.684	
7,500.0	6,785.2	7,003.6	6,838.7	30.0	24.4	-88.66	2,299.3	1,027.5	1,099.7	1,057.8	41.90	26.244	
7,600.0	6,784.6	7,003.5	6,838.6	31.2	24.4	-88.66	2,299.3	1,027.5	1,060.0	1,016.1	43.98	24.104	
7,700.0	6,784.0	7,003.3	6,838.4	32.8	24.4	-88.65	2,299.3	1,027.5	1,028.6	982.5	46.17	22.280	
7,800.0	6,783.4	7,003.2	6,838.3	34.7	24.4	-88.64	2,299.3	1,027.5	1,006.2	957.8	48.45	20.767	
7,900.0	6,782.8	7,003.1	6,838.2	36.8	24.4	-88.63	2,299.3	1,027.5	993.5	942.6	50.82	19.550	
7,977.9	6,782.3	7,003.0	6,838.1	38.6	24.4	-88.63	2,299.3	1,027.5	990.4	937.7	52.71	18.791 CC	
8,000.0	6,782.2	7,003.0	6,838.0	39.1	24.4	-88.63	2,299.3	1,027.5	990.7	937.4	53.24	18.607 ES	
8,100.0	6,781.6	7,002.8	6,837.9	41.4	24.4	-88.62	2,299.3	1,027.5	997.9	942.2	55.72	17.910	
8,200.0	6,780.9	7,002.7	6,837.8	43.8	24.4	-88.61	2,299.3	1,027.5	1,015.0	956.8	58.23	17.430	
8,300.0	6,780.3	7,002.6	6,837.7	46.2	24.4	-88.60	2,299.3	1,027.5	1,041.5	980.7	60.79	17.134	
8,400.0	6,779.7	7,002.4	6,837.5	48.7	24.4	-88.60	2,299.3	1,027.5	1,076.6	1,013.3	63.37	16.990	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 40-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	6,779.1	7,002.3	6,837.4	51.2	24.4	-88.59	2,299.3	1,027.5	1,119.6	1,053.6	65.97	16.971 SF	
8,600.0	6,778.5	7,002.2	6,837.3	53.8	24.4	-88.58	2,299.3	1,027.5	1,169.6	1,101.0	68.60	17.050	
8,700.0	6,777.9	7,002.1	6,837.2	56.4	24.4	-88.57	2,299.3	1,027.5	1,225.7	1,154.5	71.24	17.205	
8,800.0	6,777.3	7,001.9	6,837.0	59.0	24.4	-88.57	2,299.3	1,027.5	1,287.2	1,213.3	73.90	17.417	
8,900.0	6,776.7	7,001.8	6,836.9	61.6	24.4	-88.56	2,299.3	1,027.5	1,353.2	1,276.7	76.57	17.672	
9,000.0	6,776.1	7,001.7	6,836.8	64.2	24.4	-88.55	2,299.3	1,027.5	1,423.3	1,344.0	79.26	17.957	
9,100.0	6,775.5	7,001.6	6,836.7	66.9	24.4	-88.55	2,299.3	1,027.5	1,496.7	1,414.7	81.95	18.263	
9,200.0	6,774.9	7,001.4	6,836.5	69.6	24.4	-88.54	2,299.3	1,027.5	1,573.1	1,488.4	84.66	18.581	
9,300.0	6,774.2	7,001.3	6,836.4	72.2	24.4	-88.53	2,299.3	1,027.5	1,652.0	1,564.6	87.37	18.908	
9,400.0	6,773.6	7,001.2	6,836.3	74.9	24.4	-88.52	2,299.3	1,027.5	1,733.0	1,642.9	90.09	19.237	
9,500.0	6,773.0	7,001.1	6,836.2	77.6	24.4	-88.52	2,299.3	1,027.5	1,816.0	1,723.2	92.81	19.566	
9,600.0	6,772.4	7,001.0	6,836.0	80.3	24.4	-88.51	2,299.3	1,027.5	1,900.6	1,805.0	95.55	19.892	
9,700.0	6,771.8	7,000.8	6,835.9	83.0	24.4	-88.50	2,299.3	1,027.5	1,986.6	1,888.3	98.28	20.214	
9,800.0	6,771.2	7,000.7	6,835.8	85.7	24.4	-88.50	2,299.3	1,027.5	2,073.9	1,972.9	101.02	20.529	
9,900.0	6,770.6	7,000.6	6,835.7	88.5	24.4	-88.49	2,299.3	1,027.5	2,162.3	2,058.5	103.77	20.838	
10,000.0	6,770.0	7,000.5	6,835.6	91.2	24.4	-88.48	2,299.3	1,027.5	2,251.7	2,145.1	106.52	21.139	
10,100.0	6,769.4	7,000.4	6,835.4	93.9	24.4	-88.48	2,299.3	1,027.5	2,341.9	2,232.6	109.27	21.432	
10,200.0	6,768.8	7,000.2	6,835.3	96.7	24.4	-88.47	2,299.3	1,027.5	2,432.9	2,320.8	112.02	21.717	
10,300.0	6,768.2	7,000.1	6,835.2	99.4	24.4	-88.46	2,299.3	1,027.5	2,524.5	2,409.7	114.78	21.994	
10,400.0	6,767.5	7,000.0	6,835.1	102.2	24.4	-88.46	2,299.3	1,027.5	2,616.8	2,499.3	117.54	22.262	
10,500.0	6,766.9	6,999.9	6,835.0	104.9	24.4	-88.45	2,299.2	1,027.5	2,709.6	2,589.3	120.31	22.522	
10,600.0	6,766.3	6,999.8	6,834.9	107.7	24.4	-88.44	2,299.2	1,027.5	2,802.9	2,679.9	123.07	22.774	
10,700.0	6,765.7	6,999.7	6,834.7	110.4	24.4	-88.44	2,299.2	1,027.5	2,896.7	2,770.9	125.84	23.019	
10,800.0	6,765.1	6,999.5	6,834.6	113.2	24.4	-88.43	2,299.2	1,027.5	2,990.9	2,862.3	128.61	23.255	
10,900.0	6,764.5	6,999.4	6,834.5	115.9	24.4	-88.42	2,299.2	1,027.5	3,085.4	2,954.0	131.38	23.484	
11,000.0	6,763.9	6,999.3	6,834.4	118.7	24.4	-88.42	2,299.2	1,027.5	3,180.3	3,046.1	134.16	23.706	
11,100.0	6,763.3	6,999.2	6,834.3	121.5	24.4	-88.41	2,299.2	1,027.5	3,275.5	3,138.5	136.93	23.920	
11,200.0	6,762.7	6,999.1	6,834.2	124.2	24.4	-88.40	2,299.2	1,027.5	3,370.9	3,231.2	139.71	24.128	
11,300.0	6,762.1	6,999.0	6,834.1	127.0	24.4	-88.40	2,299.2	1,027.5	3,466.6	3,324.1	142.49	24.329	
11,400.0	6,761.5	6,998.9	6,833.9	129.8	24.4	-88.39	2,299.2	1,027.5	3,562.6	3,417.3	145.27	24.524	
11,500.0	6,760.9	6,998.7	6,833.8	132.5	24.4	-88.39	2,299.2	1,027.5	3,658.7	3,510.7	148.05	24.713	
11,600.0	6,760.3	6,998.6	6,833.7	135.3	24.4	-88.38	2,299.2	1,027.5	3,755.1	3,604.3	150.83	24.896	
11,700.0	6,759.6	6,998.5	6,833.6	138.1	24.4	-88.37	2,299.2	1,027.5	3,851.7	3,698.0	153.61	25.074	
11,800.0	6,759.0	6,998.4	6,833.5	140.8	24.4	-88.37	2,299.2	1,027.5	3,948.4	3,792.0	156.39	25.246	
11,900.0	6,758.4	6,998.3	6,833.4	143.6	24.4	-88.36	2,299.2	1,027.5	4,045.3	3,886.1	159.18	25.413	
11,971.6	6,758.0	6,998.2	6,833.3	145.6	24.4	-88.36	2,299.2	1,027.5	4,114.7	3,953.5	161.17	25.530	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 80-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	92.25	-14.6	370.6	370.9				
100.0	100.0	97.0	97.0	0.1	0.1	92.26	-14.6	370.5	370.8	370.6	0.21	1,731.615	
200.0	200.0	197.4	197.4	0.3	0.3	92.28	-14.8	370.4	370.7	370.0	0.66	557.547	
300.0	300.0	298.0	298.0	0.5	0.6	92.32	-15.0	370.1	370.4	369.3	1.12	331.909	
400.0	400.0	398.0	398.0	0.8	0.8	92.38	-15.3	369.7	370.0	368.4	1.57	236.281	
500.0	500.0	498.7	498.7	1.0	1.0	92.45	-15.8	369.1	369.5	367.5	2.02	183.127	
571.1	571.1	570.0	570.0	1.2	1.2	105.36	-16.1	368.6	369.2	366.9	2.34	158.000	CC
600.0	600.0	598.9	598.9	1.2	1.2	105.52	-16.3	368.4	369.3	366.8	2.47	149.698	ES
700.0	699.8	699.8	699.8	1.5	1.5	106.40	-16.9	367.6	369.9	367.0	2.92	126.743	
800.0	799.5	800.5	800.5	1.7	1.7	107.78	-17.6	366.4	371.4	368.0	3.37	110.129	
900.0	898.7	899.2	899.2	1.9	1.9	109.55	-18.0	365.3	374.2	370.4	3.81	98.156	
1,000.0	997.5	997.8	997.7	2.2	2.1	111.74	-18.3	364.3	378.8	374.5	4.29	88.197	
1,100.0	1,095.6	1,096.1	1,096.1	2.6	2.3	114.30	-18.7	363.1	385.3	380.5	4.82	79.903	
1,200.0	1,193.1	1,193.7	1,193.7	3.0	2.5	117.17	-19.2	362.0	394.2	388.8	5.38	73.256	
1,289.7	1,279.7	1,280.4	1,280.4	3.4	2.7	119.93	-19.7	360.9	404.6	398.7	5.90	68.590	
1,300.0	1,289.6	1,290.5	1,290.4	3.4	2.7	120.28	-19.8	360.7	405.9	399.9	5.96	68.117	
1,400.0	1,385.9	1,387.1	1,387.0	3.9	2.9	123.51	-20.1	359.5	419.5	413.0	6.54	64.127	
1,500.0	1,482.1	1,483.4	1,483.4	4.4	3.1	126.50	-20.2	358.3	434.5	427.3	7.12	61.036	
1,600.0	1,578.3	1,579.2	1,579.1	4.9	3.3	129.26	-20.2	357.2	450.5	442.9	7.69	58.625	
1,700.0	1,674.5	1,670.6	1,670.5	5.5	3.4	131.69	-20.1	356.5	468.0	459.7	8.24	56.815	
1,800.0	1,770.8	1,756.3	1,756.2	6.0	3.6	133.77	-20.5	357.4	487.9	479.2	8.78	55.600	
1,900.0	1,867.0	1,840.0	1,839.9	6.5	3.8	135.60	-21.5	360.2	510.9	501.6	9.31	54.895	
2,000.0	1,963.2	1,924.1	1,923.8	7.1	4.0	137.27	-23.4	364.7	536.6	526.8	9.83	54.563	
2,100.0	2,059.4	2,009.6	2,009.0	7.6	4.1	138.90	-26.9	370.2	564.6	554.3	10.36	54.520	
2,200.0	2,155.7	2,086.4	2,085.5	8.1	4.3	140.29	-31.3	376.1	595.2	584.3	10.86	54.801	
2,300.0	2,251.9	2,160.0	2,158.5	8.7	4.5	141.47	-36.7	383.7	629.0	617.6	11.36	55.370	
2,400.0	2,348.1	2,240.0	2,237.5	9.2	4.7	142.60	-43.7	394.1	665.8	653.9	11.86	56.125	
2,500.0	2,444.3	2,306.9	2,303.3	9.8	4.8	143.43	-50.6	404.4	705.4	693.1	12.35	57.097	
2,600.0	2,540.6	2,381.3	2,376.0	10.3	5.1	144.19	-58.8	417.8	747.5	734.7	12.85	58.151	
2,700.0	2,636.8	2,477.6	2,469.8	10.9	5.3	144.98	-68.9	436.7	790.6	777.2	13.38	59.087	
2,800.0	2,733.0	2,574.1	2,564.1	11.4	5.6	145.62	-77.8	455.4	832.7	818.8	13.91	59.858	
2,900.0	2,829.2	2,658.2	2,646.2	12.0	5.9	146.08	-85.2	472.0	874.8	860.4	14.44	60.584	
3,000.0	2,925.5	2,752.9	2,738.6	12.5	6.2	146.59	-94.0	490.8	917.4	902.4	14.99	61.219	
3,100.0	3,021.7	2,844.0	2,827.6	13.1	6.6	147.04	-102.3	508.3	959.5	944.0	15.53	61.799	
3,200.0	3,117.9	2,937.5	2,918.9	13.6	6.9	147.46	-110.7	526.5	1,001.7	985.6	16.08	62.299	
3,300.0	3,214.1	3,026.7	3,006.1	14.2	7.2	147.81	-118.3	543.7	1,043.5	1,026.9	16.63	62.758	
3,400.0	3,310.4	3,114.5	3,092.0	14.7	7.6	148.14	-126.2	560.7	1,085.8	1,068.6	17.18	63.202	
3,500.0	3,406.6	3,205.8	3,181.1	15.3	7.9	148.46	-134.4	578.5	1,128.1	1,110.4	17.74	63.598	
3,600.0	3,502.8	3,295.1	3,268.3	15.8	8.3	148.74	-142.3	596.0	1,170.4	1,152.1	18.30	63.963	
3,700.0	3,599.0	3,375.8	3,347.1	16.4	8.6	148.98	-149.7	611.9	1,213.1	1,194.2	18.85	64.372	
3,800.0	3,695.3	3,446.6	3,416.0	17.0	8.9	149.17	-156.8	626.6	1,257.0	1,237.6	19.38	64.865	
3,900.0	3,791.5	3,520.0	3,487.1	17.5	9.2	149.33	-164.6	642.9	1,302.1	1,282.2	19.92	65.356	
4,000.0	3,887.7	3,602.0	3,566.4	18.1	9.6	149.49	-173.5	661.8	1,348.0	1,327.5	20.49	65.783	
4,100.0	3,983.9	3,702.7	3,663.8	18.6	10.1	149.66	-184.4	685.0	1,393.9	1,372.8	21.10	66.059	
4,200.0	4,080.2	3,823.8	3,781.4	19.2	10.6	149.85	-196.0	711.4	1,438.2	1,416.4	21.75	66.118	
4,300.0	4,176.4	3,914.0	3,869.3	19.7	11.0	150.03	-204.5	729.7	1,481.5	1,459.2	22.33	66.345	
4,400.0	4,272.6	4,005.0	3,958.1	20.3	11.4	150.22	-213.5	747.8	1,524.8	1,501.9	22.91	66.561	
4,500.0	4,368.8	4,103.4	4,054.1	20.8	11.8	150.41	-222.9	767.3	1,567.9	1,544.4	23.51	66.704	
4,600.0	4,465.1	4,194.2	4,142.6	21.4	12.1	150.58	-231.4	785.2	1,610.8	1,586.7	24.09	66.870	
4,700.0	4,561.3	4,308.5	4,254.4	21.9	12.6	150.77	-241.4	807.4	1,653.1	1,628.3	24.73	66.854	
4,800.0	4,657.5	4,391.0	4,335.1	22.5	13.0	150.92	-248.7	822.4	1,694.8	1,669.5	25.29	67.022	
4,900.0	4,753.7	4,466.0	4,408.5	23.1	13.3	151.06	-255.8	836.5	1,737.2	1,711.3	25.83	67.246	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 80-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,850.0	4,554.5	4,494.8	23.6	13.7	151.19	-264.0	854.0	1,780.1	1,753.7	26.42	67.380	
5,100.0	4,946.2	4,651.9	4,589.8	24.2	14.1	151.30	-272.5	873.6	1,822.8	1,795.8	27.03	67.434	
5,200.0	5,042.4	4,789.7	4,724.6	24.7	14.7	151.44	-283.1	900.2	1,864.5	1,836.7	27.74	67.207	
5,300.0	5,138.6	4,899.7	4,832.7	25.3	15.1	151.61	-290.9	918.8	1,904.1	1,875.7	28.37	67.125	
5,400.0	5,234.9	4,990.0	4,921.5	25.8	15.4	151.72	-296.7	934.3	1,943.5	1,914.6	28.95	67.123	
5,426.2	5,260.1	5,012.8	4,943.9	26.0	15.5	151.75	-298.3	938.2	1,953.9	1,924.8	29.11	67.128	
5,500.0	5,331.3	5,079.6	5,009.6	26.3	15.8	152.12	-303.0	949.4	1,982.3	1,952.7	29.56	67.056	
5,600.0	5,428.7	5,213.6	5,141.6	26.7	16.2	152.59	-312.4	970.4	2,017.8	1,987.6	30.22	66.763	
5,700.0	5,526.7	5,311.0	5,237.1	27.0	17.1	153.20	-325.4	999.4	2,045.5	2,014.4	31.16	65.644	
5,800.0	5,625.4	5,404.8	5,329.8	27.3	17.3	153.60	-327.6	1,003.6	2,063.0	2,031.3	31.69	65.100	
5,900.0	5,724.6	5,504.0	5,429.0	27.6	17.5	153.90	-328.4	1,005.3	2,075.7	2,043.5	32.16	64.548	
6,000.0	5,824.1	5,603.5	5,528.5	27.8	17.7	154.07	-328.0	1,006.0	2,084.2	2,051.6	32.53	64.066	
6,100.0	5,924.0	5,703.4	5,628.4	28.0	17.8	154.17	-328.0	1,006.7	2,089.9	2,057.1	32.84	63.631	
6,200.0	6,023.9	5,803.3	5,728.3	28.1	18.0	154.20	-328.3	1,007.9	2,093.0	2,059.9	33.12	63.185	
6,215.9	6,039.8	5,819.2	5,744.2	28.1	18.0	141.48	-328.3	1,008.1	2,093.2	2,049.7	43.55	48.064	
6,245.9	6,069.8	5,849.2	5,774.2	28.1	18.0	141.47	-328.5	1,008.5	2,093.6	2,050.0	43.63	47.986	
6,250.0	6,073.9	5,853.3	5,778.3	28.1	18.1	51.47	-328.5	1,008.5	2,093.6	2,060.4	33.27	62.926	
6,300.0	6,123.9	5,903.3	5,828.3	28.2	18.1	51.55	-328.9	1,009.1	2,093.0	2,059.7	33.33	62.789	
6,350.0	6,173.6	5,953.0	5,878.0	28.2	18.2	51.83	-329.2	1,009.7	2,090.2	2,056.9	33.32	62.732	
6,400.0	6,222.7	6,002.1	5,927.1	28.2	18.3	52.34	-329.6	1,010.3	2,085.3	2,052.1	33.24	62.739	
6,450.0	6,271.2	6,051.6	5,976.6	28.2	18.4	53.08	-329.9	1,010.8	2,078.2	2,045.1	33.10	62.789	
6,500.0	6,318.6	6,099.0	6,024.0	28.2	18.5	54.04	-330.1	1,011.3	2,069.0	2,036.1	32.91	62.861	
6,550.0	6,364.9	6,145.3	6,070.3	28.2	18.6	55.23	-330.2	1,011.7	2,057.8	2,025.1	32.72	62.900	
6,600.0	6,409.7	6,190.6	6,115.6	28.2	18.6	56.63	-330.3	1,012.1	2,044.7	2,012.2	32.53	62.865	
6,650.0	6,452.8	6,235.9	6,160.9	28.2	18.7	58.22	-330.4	1,012.2	2,029.9	1,997.5	32.37	62.702	
6,700.0	6,494.1	6,278.2	6,203.2	28.2	18.8	59.99	-330.6	1,012.3	2,013.6	1,981.3	32.30	62.344	
6,750.0	6,533.3	6,317.5	6,242.5	28.2	18.8	61.98	-330.8	1,012.4	1,995.9	1,963.6	32.33	61.728	
6,800.0	6,570.3	6,354.9	6,279.9	28.2	18.9	64.17	-330.9	1,012.4	1,977.1	1,944.6	32.51	60.813	
6,850.0	6,604.8	6,389.4	6,314.4	28.2	18.9	66.52	-331.0	1,012.4	1,957.2	1,924.4	32.84	59.593	
6,900.0	6,636.7	6,421.3	6,346.3	28.2	19.0	68.86	-331.1	1,012.4	1,936.6	1,903.2	33.31	58.146	
6,950.0	6,665.8	6,450.4	6,375.4	28.2	19.0	71.23	-331.2	1,012.5	1,915.4	1,881.5	33.90	56.497	
7,000.0	6,692.1	6,478.1	6,403.1	28.2	19.1	73.65	-331.3	1,012.6	1,894.0	1,859.3	34.63	54.698	
7,050.0	6,715.3	6,501.4	6,426.4	28.2	19.1	76.12	-331.4	1,012.7	1,872.4	1,837.0	35.46	52.806	
7,100.0	6,735.4	6,521.5	6,446.5	28.2	19.1	78.59	-331.6	1,012.8	1,851.0	1,814.6	36.37	50.887	
7,150.0	6,752.2	6,538.3	6,463.3	28.3	19.2	81.00	-331.7	1,012.9	1,829.8	1,792.5	37.34	49.004	
7,200.0	6,765.7	6,551.8	6,476.8	28.3	19.2	83.31	-331.8	1,013.0	1,809.1	1,770.8	38.33	47.195	
7,250.0	6,775.8	6,561.9	6,486.9	28.4	19.2	85.44	-331.9	1,013.0	1,789.1	1,749.8	39.33	45.487	
7,300.0	6,782.5	6,569.0	6,493.5	28.6	19.2	87.36	-331.9	1,013.1	1,770.0	1,729.7	40.33	43.889	
7,350.0	6,785.7	6,572.1	6,496.7	28.8	19.2	89.05	-331.9	1,013.1	1,752.0	1,710.7	41.32	42.397	
7,375.3	6,786.0	6,572.4	6,497.0	29.0	19.2	89.81	-331.9	1,013.1	1,743.3	1,701.5	41.82	41.683	
7,400.0	6,785.8	6,571.7	6,496.3	29.1	19.2	89.81	-331.9	1,013.1	1,735.1	1,692.8	42.27	41.047	
7,500.0	6,785.2	6,571.1	6,495.7	30.0	19.2	89.81	-331.9	1,013.1	1,705.3	1,661.1	44.20	38.583	
7,600.0	6,784.6	6,570.5	6,495.1	31.2	19.2	89.80	-331.9	1,013.1	1,680.9	1,634.6	46.28	36.323	
7,700.0	6,784.0	6,569.9	6,494.5	32.8	19.2	89.80	-331.9	1,013.1	1,662.1	1,613.6	48.47	34.293	
7,800.0	6,783.4	6,569.3	6,493.9	34.7	19.2	89.80	-331.9	1,013.1	1,649.2	1,598.5	50.76	32.493	
7,900.0	6,782.8	6,568.7	6,493.3	36.8	19.2	89.80	-331.9	1,013.1	1,642.3	1,589.2	53.12	30.917	
7,963.3	6,782.4	6,568.3	6,492.9	38.2	19.2	89.79	-331.9	1,013.1	1,641.1	1,586.5	54.66	30.025	
8,000.0	6,782.2	6,568.1	6,492.7	39.1	19.2	89.79	-331.9	1,013.1	1,641.5	1,586.0	55.55	29.552	
8,100.0	6,781.6	6,567.5	6,492.1	41.4	19.2	89.79	-331.9	1,013.1	1,646.8	1,588.8	58.03	28.381	
8,200.0	6,780.9	6,566.8	6,491.4	43.8	19.2	89.79	-331.9	1,013.1	1,658.1	1,597.6	60.54	27.386	
8,300.0	6,780.3	6,566.2	6,490.8	46.2	19.2	89.79	-331.9	1,013.1	1,675.3	1,612.2	63.10	26.551	
8,400.0	6,779.7	6,565.6	6,490.2	48.7	19.2	89.78	-331.9	1,013.1	1,698.2	1,632.5	65.68	25.856	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 80-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	6,779.1	6,846.7	6,772.7	51.2	19.2	89.78	-331.9	1,013.1	1,726.6	1,658.4	68.29	25.285	
8,600.0	6,778.5	6,846.6	6,772.6	53.8	19.2	89.78	-331.9	1,013.1	1,760.3	1,689.4	70.92	24.822	
8,700.0	6,777.9	6,846.6	6,772.5	56.4	19.2	89.78	-331.9	1,013.1	1,798.9	1,725.3	73.56	24.454	
8,800.0	6,777.3	6,846.5	6,772.5	59.0	19.2	89.78	-331.9	1,013.1	1,842.1	1,765.9	76.22	24.167	
8,900.0	6,776.7	6,846.4	6,772.4	61.6	19.2	89.77	-331.9	1,013.1	1,889.6	1,810.7	78.90	23.950	
9,000.0	6,776.1	6,846.4	6,772.4	64.2	19.2	89.77	-331.9	1,013.1	1,941.1	1,859.5	81.58	23.793	
9,100.0	6,775.5	6,846.3	6,772.3	66.9	19.2	89.77	-331.9	1,013.1	1,996.3	1,912.0	84.28	23.687	
9,200.0	6,774.9	6,846.3	6,772.2	69.6	19.2	89.77	-331.9	1,013.1	2,054.9	1,967.9	86.99	23.623	
9,300.0	6,774.2	6,846.2	6,772.2	72.2	19.2	89.77	-331.9	1,013.1	2,116.6	2,026.9	89.70	23.597 SF	
9,400.0	6,773.6	6,846.1	6,772.1	74.9	19.2	89.76	-331.9	1,013.1	2,181.1	2,088.7	92.42	23.600	
9,500.0	6,773.0	6,846.1	6,772.1	77.6	19.2	89.76	-331.9	1,013.1	2,248.3	2,153.1	95.15	23.629	
9,600.0	6,772.4	6,846.0	6,772.0	80.3	19.2	89.76	-331.9	1,013.1	2,317.8	2,219.9	97.88	23.680	
9,700.0	6,771.8	6,846.0	6,771.9	83.0	19.2	89.76	-331.9	1,013.1	2,389.4	2,288.8	100.62	23.748	
9,800.0	6,771.2	6,845.9	6,771.9	85.7	19.2	89.76	-331.9	1,013.1	2,463.1	2,359.7	103.36	23.830	
9,900.0	6,770.6	6,845.8	6,771.8	88.5	19.2	89.75	-331.9	1,013.1	2,538.5	2,432.4	106.11	23.924	
10,000.0	6,770.0	6,845.8	6,771.8	91.2	19.2	89.75	-331.9	1,013.1	2,615.6	2,506.7	108.86	24.028	
10,100.0	6,769.4	6,845.7	6,771.7	93.9	19.2	89.75	-331.9	1,013.1	2,694.2	2,582.6	111.61	24.139	
10,200.0	6,768.8	6,845.7	6,771.6	96.7	19.2	89.75	-331.9	1,013.1	2,774.2	2,659.8	114.37	24.257	
10,300.0	6,768.2	6,845.6	6,771.6	99.4	19.2	89.75	-331.9	1,013.1	2,855.4	2,738.3	117.13	24.379	
10,400.0	6,767.5	6,845.5	6,771.5	102.2	19.2	89.74	-331.9	1,013.1	2,937.8	2,817.9	119.89	24.504	
10,500.0	6,766.9	6,845.5	6,771.5	104.9	19.2	89.74	-331.9	1,013.1	3,021.3	2,898.6	122.66	24.632	
10,600.0	6,766.3	6,845.4	6,771.4	107.7	19.2	89.74	-331.9	1,013.1	3,105.7	2,980.3	125.42	24.762	
10,700.0	6,765.7	6,845.4	6,771.3	110.4	19.2	89.74	-331.9	1,013.1	3,191.0	3,062.8	128.19	24.892	
10,800.0	6,765.1	6,845.3	6,771.3	113.2	19.2	89.74	-331.9	1,013.1	3,277.2	3,146.2	130.96	25.024	
10,900.0	6,764.5	6,845.3	6,771.2	115.9	19.2	89.73	-331.9	1,013.1	3,364.1	3,230.4	133.74	25.155	
11,000.0	6,763.9	6,845.2	6,771.2	118.7	19.2	89.73	-331.9	1,013.1	3,451.8	3,315.3	136.51	25.285	
11,100.0	6,763.3	6,845.1	6,771.1	121.5	19.2	89.73	-331.9	1,013.1	3,540.1	3,400.8	139.29	25.415	
11,200.0	6,762.7	6,845.1	6,771.1	124.2	19.2	89.73	-331.9	1,013.1	3,629.0	3,486.9	142.07	25.544	
11,300.0	6,762.1	6,845.0	6,771.0	127.0	19.2	89.73	-331.9	1,013.1	3,718.4	3,573.6	144.85	25.672	
11,400.0	6,761.5	6,845.0	6,771.0	129.8	19.2	89.72	-331.9	1,013.1	3,808.4	3,660.8	147.63	25.798	
11,500.0	6,760.9	6,844.9	6,770.9	132.5	19.2	89.72	-331.9	1,013.1	3,898.9	3,748.5	150.41	25.922	
11,600.0	6,760.3	6,844.9	6,770.8	135.3	19.2	89.72	-331.9	1,013.1	3,989.8	3,836.6	153.19	26.045	
11,700.0	6,759.6	6,844.8	6,770.8	138.1	19.2	89.72	-331.9	1,013.1	4,081.2	3,925.2	155.98	26.165	
11,800.0	6,759.0	6,844.8	6,770.7	140.8	19.2	89.72	-331.9	1,013.1	4,172.9	4,014.2	158.76	26.284	
11,900.0	6,758.4	6,844.7	6,770.7	143.6	19.2	89.72	-331.9	1,013.1	4,265.1	4,103.5	161.55	26.401	
11,971.6	6,758.0	6,844.7	6,770.6	145.6	19.2	89.71	-331.9	1,013.1	4,331.2	4,167.7	163.54	26.484	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	104.5	104.5	0.0	0.0	60.11	1,737.9	3,023.3	3,487.3				
100.0	100.0	204.5	204.5	0.1	1.2	60.11	1,737.9	3,023.3	3,487.3	3,486.0	1.29	2,696.925	
200.0	200.0	304.5	304.5	0.3	3.5	60.11	1,737.9	3,023.3	3,487.3	3,483.4	3.82	912.621	
300.0	300.0	404.5	404.5	0.5	5.6	60.11	1,737.9	3,023.3	3,487.3	3,481.1	6.12	569.418	
400.0	400.0	504.5	504.5	0.8	7.6	60.11	1,737.9	3,023.3	3,487.3	3,478.9	8.39	415.596	
500.0	500.0	604.5	604.5	1.0	9.6	60.11	1,737.9	3,023.3	3,487.3	3,476.6	10.64	327.607	
600.0	600.0	704.5	704.5	1.2	11.7	72.86	1,737.9	3,023.3	3,486.7	3,473.8	12.89	270.492	
700.0	699.8	804.3	804.3	1.5	13.7	72.98	1,737.9	3,023.3	3,485.2	3,470.1	15.13	230.330	
800.0	799.5	904.0	904.0	1.7	15.7	73.16	1,737.9	3,023.3	3,482.7	3,465.3	17.37	200.444	
900.0	898.7	1,003.2	1,003.2	1.9	17.7	73.42	1,737.9	3,023.3	3,479.1	3,459.5	19.63	177.245	
1,000.0	997.5	1,102.0	1,102.0	2.2	19.7	73.75	1,737.9	3,023.3	3,474.7	3,452.8	21.90	158.643	
1,100.0	1,095.6	1,200.1	1,200.1	2.6	21.7	74.15	1,737.9	3,023.3	3,469.3	3,445.1	24.20	143.343	
1,200.0	1,193.1	1,297.6	1,297.6	3.0	23.6	74.62	1,737.9	3,023.3	3,463.1	3,436.5	26.54	130.505	
1,289.7	1,279.7	1,384.2	1,384.2	3.4	25.4	75.10	1,737.9	3,023.3	3,456.9	3,428.2	28.66	120.616	
1,300.0	1,289.6	1,394.1	1,394.1	3.4	25.6	75.14	1,737.9	3,023.3	3,456.1	3,427.2	28.91	119.554	
1,400.0	1,385.9	1,490.4	1,490.4	3.9	27.5	75.56	1,737.9	3,023.3	3,449.0	3,417.7	31.32	110.110	
1,500.0	1,482.1	1,586.6	1,586.6	4.4	29.4	75.99	1,737.9	3,023.3	3,442.0	3,408.3	33.75	101.972	
1,600.0	1,578.3	1,682.8	1,682.8	4.9	31.4	76.41	1,737.9	3,023.3	3,435.3	3,399.1	36.20	94.900	
1,700.0	1,674.5	1,779.0	1,779.0	5.5	33.3	76.84	1,737.9	3,023.3	3,428.8	3,390.1	38.65	88.706	
1,800.0	1,770.8	1,875.3	1,875.3	6.0	35.3	77.26	1,737.9	3,023.3	3,422.5	3,381.3	41.11	83.242	
1,900.0	1,867.0	1,971.5	1,971.5	6.5	37.2	77.69	1,737.9	3,023.3	3,416.3	3,372.8	43.58	78.389	
2,000.0	1,963.2	2,067.7	2,067.7	7.1	39.1	78.12	1,737.9	3,023.3	3,410.4	3,364.4	46.05	74.053	
2,100.0	2,059.4	2,163.9	2,163.9	7.6	41.1	78.56	1,737.9	3,023.3	3,404.7	3,356.2	48.53	70.158	
2,200.0	2,155.7	2,260.2	2,260.2	8.1	43.0	78.99	1,737.9	3,023.3	3,399.2	3,348.2	51.01	66.640	
2,300.0	2,251.9	2,356.4	2,356.4	8.7	44.9	79.42	1,737.9	3,023.3	3,393.9	3,340.4	53.49	63.449	
2,400.0	2,348.1	2,452.6	2,452.6	9.2	46.9	79.86	1,737.9	3,023.3	3,388.9	3,332.9	55.97	60.542	
2,500.0	2,444.3	2,548.8	2,548.8	9.8	48.8	80.30	1,737.9	3,023.3	3,384.0	3,325.5	58.46	57.884	
2,600.0	2,540.6	2,645.1	2,645.1	10.3	50.7	80.73	1,737.9	3,023.3	3,379.3	3,318.4	60.95	55.444	
2,700.0	2,636.8	2,741.3	2,741.3	10.9	52.7	81.17	1,737.9	3,023.3	3,374.9	3,311.4	63.44	53.198	
2,800.0	2,733.0	2,837.5	2,837.5	11.4	54.6	81.61	1,737.9	3,023.3	3,370.7	3,304.7	65.93	51.124	
2,900.0	2,829.2	2,933.7	2,933.7	12.0	56.5	82.06	1,737.9	3,023.3	3,366.6	3,298.2	68.42	49.203	
3,000.0	2,925.5	3,030.0	3,030.0	12.5	58.5	82.50	1,737.9	3,023.3	3,362.8	3,291.9	70.92	47.419	
3,100.0	3,021.7	3,126.2	3,126.2	13.1	60.4	82.94	1,737.9	3,023.3	3,359.3	3,285.8	73.41	45.759	
3,200.0	3,117.9	3,222.4	3,222.4	13.6	62.4	83.38	1,737.9	3,023.3	3,355.9	3,280.0	75.91	44.211	
3,300.0	3,214.1	3,318.6	3,318.6	14.2	64.3	83.83	1,737.9	3,023.3	3,352.7	3,274.3	78.40	42.764	
3,400.0	3,310.4	3,414.9	3,414.9	14.7	66.2	84.28	1,737.9	3,023.3	3,349.8	3,268.9	80.90	41.408	
3,500.0	3,406.6	3,511.1	3,511.1	15.3	68.2	84.72	1,737.9	3,023.3	3,347.1	3,263.7	83.39	40.136	
3,600.0	3,502.8	3,607.3	3,607.3	15.8	70.1	85.17	1,737.9	3,023.3	3,344.6	3,258.7	85.89	38.941	
3,700.0	3,599.0	3,703.5	3,703.5	16.4	72.0	85.62	1,737.9	3,023.3	3,342.3	3,254.0	88.39	37.815	
3,800.0	3,695.3	3,799.8	3,799.8	17.0	74.0	86.06	1,737.9	3,023.3	3,340.3	3,249.4	90.88	36.754	
3,900.0	3,791.5	3,896.0	3,896.0	17.5	75.9	86.51	1,737.9	3,023.3	3,338.5	3,245.1	93.38	35.752	
4,000.0	3,887.7	3,992.2	3,992.2	18.1	77.8	86.96	1,737.9	3,023.3	3,336.9	3,241.0	95.87	34.805	
4,100.0	3,983.9	4,088.4	4,088.4	18.6	79.8	87.41	1,737.9	3,023.3	3,335.5	3,237.1	98.37	33.908	
4,200.0	4,080.2	4,184.7	4,184.7	19.2	81.7	87.86	1,737.9	3,023.3	3,334.3	3,233.4	100.86	33.058	
4,300.0	4,176.4	4,280.9	4,280.9	19.7	83.6	88.31	1,737.9	3,023.3	3,333.3	3,230.0	103.36	32.251	
4,400.0	4,272.6	4,377.1	4,377.1	20.3	85.6	88.76	1,737.9	3,023.3	3,332.6	3,226.8	105.85	31.485	
4,500.0	4,368.8	4,473.3	4,473.3	20.8	87.5	89.21	1,737.9	3,023.3	3,332.1	3,223.8	108.34	30.756	
4,600.0	4,465.1	4,569.6	4,569.6	21.4	89.4	89.66	1,737.9	3,023.3	3,331.8	3,221.0	110.83	30.063	
4,675.4	4,537.6	4,642.1	4,642.1	21.8	90.9	90.00	1,737.9	3,023.3	3,331.8	3,219.1	112.71	29.561	
4,700.0	4,561.3	4,665.8	4,665.8	21.9	91.4	90.11	1,737.9	3,023.3	3,331.8	3,218.5	113.32	29.402	
4,800.0	4,657.5	4,762.0	4,762.0	22.5	93.3	90.56	1,737.9	3,023.3	3,332.0	3,216.1	115.81	28.772	
4,900.0	4,753.7	4,858.2	4,858.2	23.1	95.2	91.01	1,737.9	3,023.3	3,332.3	3,214.0	118.29	28.170	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,850.0	4,954.5	4,954.5	23.6	97.2	91.46	1,737.9	3,023.3	3,333.0	3,212.2	120.78	27.595	
5,100.0	4,946.2	5,050.7	5,050.7	24.2	99.1	91.91	1,737.9	3,023.3	3,333.8	3,210.5	123.26	27.046	
5,200.0	5,042.4	5,146.9	5,146.9	24.7	101.1	92.36	1,737.9	3,023.3	3,334.8	3,209.1	125.74	26.521	
5,300.0	5,138.6	5,243.1	5,243.1	25.3	103.0	92.81	1,737.9	3,023.3	3,336.1	3,207.9	128.22	26.018	
5,400.0	5,234.9	5,339.4	5,339.4	25.8	104.9	93.26	1,737.9	3,023.3	3,337.6	3,206.9	130.70	25.536	
5,426.2	5,260.1	5,364.6	5,364.6	26.0	105.4	93.38	1,737.9	3,023.3	3,338.0	3,206.7	131.35	25.413	
5,500.0	5,331.3	5,435.8	5,435.8	26.3	106.9	93.72	1,737.9	3,023.3	3,339.3	3,206.1	133.13	25.083	
5,600.0	5,428.7	5,533.2	5,533.2	26.7	108.8	94.13	1,737.9	3,023.3	3,340.9	3,205.4	135.46	24.664	
5,700.0	5,526.7	5,631.2	5,631.2	27.0	110.8	94.49	1,737.9	3,023.3	3,342.4	3,204.6	137.76	24.263	
5,800.0	5,625.4	5,729.9	5,729.9	27.3	112.8	94.79	1,737.9	3,023.3	3,343.7	3,203.7	140.03	23.878	
5,900.0	5,724.6	5,829.1	5,829.1	27.6	114.8	95.03	1,737.9	3,023.3	3,344.8	3,202.6	142.28	23.510	
6,000.0	5,824.1	5,928.6	5,928.6	27.8	116.8	95.20	1,737.9	3,023.3	3,345.7	3,201.2	144.48	23.156	
6,100.0	5,924.0	6,028.5	6,028.5	28.0	118.8	95.31	1,737.9	3,023.3	3,346.2	3,199.5	146.65	22.817	
6,200.0	6,023.9	6,128.4	6,128.4	28.1	120.8	95.36	1,737.9	3,023.3	3,346.4	3,197.6	148.78	22.493	
6,215.9	6,039.8	6,144.3	6,144.3	28.1	121.1	82.64	1,737.9	3,023.3	3,346.4	3,209.1	137.28	24.377	
6,245.9	6,069.8	6,174.3	6,174.3	28.1	121.7	82.64	1,737.9	3,023.3	3,346.4	3,208.5	137.93	24.262	
6,250.0	6,073.9	6,178.4	6,178.4	28.1	121.8	-7.36	1,737.9	3,023.3	3,346.4	3,196.6	149.83	22.335	
6,300.0	6,123.9	6,228.4	6,228.4	28.2	122.8	-7.39	1,737.9	3,023.3	3,344.4	3,193.9	150.45	22.229	
6,350.0	6,173.6	6,278.1	6,278.1	28.2	123.8	-7.46	1,737.9	3,023.3	3,338.9	3,188.6	150.35	22.208	
6,400.0	6,222.7	6,327.2	6,327.2	28.2	124.8	-7.57	1,737.9	3,023.3	3,330.0	3,180.5	149.51	22.274	
6,450.0	6,271.2	6,375.7	6,375.7	28.2	125.8	-7.73	1,737.9	3,023.3	3,317.8	3,169.8	147.92	22.430	
6,500.0	6,318.6	6,423.1	6,423.1	28.2	126.7	-7.95	1,737.9	3,023.3	3,302.2	3,156.6	145.59	22.681	
6,550.0	6,364.9	6,469.4	6,469.4	28.2	127.6	-8.22	1,737.9	3,023.3	3,283.3	3,140.8	142.53	23.037	
6,600.0	6,409.7	6,514.2	6,514.2	28.2	128.6	-8.57	1,737.9	3,023.3	3,261.4	3,122.6	138.75	23.506	
6,650.0	6,452.8	6,557.3	6,557.3	28.2	129.4	-8.99	1,737.9	3,023.3	3,236.3	3,102.0	134.28	24.101	
6,700.0	6,494.1	6,598.6	6,598.6	28.2	130.2	-9.50	1,737.9	3,023.3	3,208.4	3,079.2	129.17	24.838	
6,750.0	6,533.3	6,637.8	6,637.8	28.2	131.0	-10.13	1,737.9	3,023.3	3,177.7	3,054.2	123.48	25.735	
6,800.0	6,570.3	6,674.8	6,674.8	28.2	131.8	-10.89	1,737.9	3,023.3	3,144.3	3,027.0	117.29	26.809	
6,850.0	6,604.8	6,709.3	6,709.3	28.2	132.5	-11.83	1,737.9	3,023.3	3,108.5	2,997.8	110.73	28.073	
6,900.0	6,636.7	6,741.2	6,741.2	28.2	133.1	-12.99	1,737.9	3,023.3	3,070.4	2,966.4	103.99	29.526	
6,950.0	6,665.8	6,770.3	6,770.3	28.2	133.7	-14.46	1,737.9	3,023.3	3,030.2	2,932.8	97.38	31.118	
7,000.0	6,692.1	6,796.6	6,796.6	28.2	134.2	-16.32	1,737.9	3,023.3	2,988.1	2,896.7	91.36	32.706	
7,050.0	6,715.3	6,819.8	6,819.8	28.2	134.7	-18.77	1,737.9	3,023.3	2,944.3	2,857.5	86.73	33.949	
7,100.0	6,735.4	6,839.9	6,839.9	28.2	135.1	-22.05	1,737.9	3,023.3	2,899.0	2,814.3	84.70	34.228	
7,150.0	6,752.2	6,856.7	6,856.7	28.3	135.4	-26.60	1,737.9	3,023.3	2,852.4	2,765.4	87.06	32.766	
7,200.0	6,765.7	6,870.2	6,870.2	28.3	135.7	-33.20	1,737.9	3,023.3	2,804.9	2,708.9	95.97	29.227	
7,250.0	6,775.8	6,880.3	6,880.3	28.4	135.9	-43.15	1,737.9	3,023.3	2,756.5	2,643.3	113.20	24.350	
7,300.0	6,782.5	6,887.0	6,887.0	28.6	136.0	-58.36	1,737.9	3,023.3	2,707.6	2,570.1	137.47	19.696	
7,350.0	6,785.7	6,890.2	6,890.2	28.8	136.1	-79.89	1,737.9	3,023.3	2,658.3	2,501.0	157.35	16.894	
7,375.3	6,786.0	6,890.5	6,890.5	29.0	136.1	-92.12	1,737.9	3,023.3	2,633.4	2,474.2	159.24	16.537	
7,400.0	6,785.8	6,890.3	6,890.3	29.1	136.1	-92.10	1,737.9	3,023.3	2,609.0	2,449.3	159.69	16.338	
7,500.0	6,785.2	6,889.7	6,889.7	30.0	136.1	-92.02	1,737.9	3,023.3	2,510.4	2,348.8	161.62	15.533	
7,600.0	6,784.6	6,889.1	6,889.1	31.2	136.1	-91.94	1,737.9	3,023.3	2,411.9	2,248.2	163.70	14.734	
7,700.0	6,784.0	6,888.5	6,888.5	32.8	136.1	-91.85	1,737.9	3,023.3	2,313.6	2,147.7	165.89	13.946	
7,800.0	6,783.4	6,887.9	6,887.9	34.7	136.1	-91.77	1,737.9	3,023.3	2,215.4	2,047.2	168.18	13.173	
7,900.0	6,782.8	6,887.3	6,887.3	36.8	136.1	-91.69	1,737.9	3,023.3	2,117.4	1,946.8	170.55	12.415	
8,000.0	6,782.2	6,886.7	6,886.7	39.1	136.0	-91.61	1,737.9	3,023.3	2,019.6	1,846.6	172.98	11.675	
8,100.0	6,781.6	6,886.1	6,886.1	41.4	136.0	-91.53	1,737.9	3,023.3	1,922.0	1,746.5	175.45	10.954	
8,200.0	6,780.9	6,885.4	6,885.4	43.8	136.0	-91.45	1,737.9	3,023.3	1,824.6	1,646.6	177.97	10.252	
8,300.0	6,780.3	6,884.8	6,884.8	46.2	136.0	-91.36	1,737.9	3,023.3	1,727.6	1,547.0	180.53	9.570	
8,400.0	6,779.7	6,884.2	6,884.2	48.7	136.0	-91.28	1,737.9	3,023.3	1,630.9	1,447.8	183.11	8.907	
8,500.0	6,779.1	6,883.6	6,883.6	51.2	136.0	-91.20	1,737.9	3,023.3	1,534.6	1,348.9	185.71	8.263	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,600.0	6,778.5	6,883.0	6,883.0	53.8	136.0	-91.12	1,737.9	3,023.3	1,438.9	1,250.6	188.34	7.640	
8,700.0	6,777.9	6,882.4	6,882.4	56.4	136.0	-91.04	1,737.9	3,023.3	1,343.8	1,152.8	190.98	7.036	
8,800.0	6,777.3	6,881.8	6,881.8	59.0	135.9	-90.96	1,737.9	3,023.3	1,249.4	1,055.8	193.64	6.452	
8,900.0	6,776.7	6,881.2	6,881.2	61.6	135.9	-90.87	1,737.9	3,023.3	1,156.0	959.7	196.32	5.888	
9,000.0	6,776.1	6,880.6	6,880.6	64.2	135.9	-90.79	1,737.9	3,023.3	1,063.8	864.8	199.00	5.346	
9,100.0	6,775.5	6,880.0	6,880.0	66.9	135.9	-90.71	1,737.9	3,023.3	973.1	771.4	201.69	4.825	
9,200.0	6,774.9	6,879.4	6,879.4	69.6	135.9	-90.63	1,737.9	3,023.3	884.4	680.0	204.39	4.327	
9,300.0	6,774.2	6,878.7	6,878.7	72.2	135.9	-90.55	1,737.9	3,023.3	798.4	591.3	207.10	3.855	
9,400.0	6,773.6	6,878.1	6,878.1	74.9	135.9	-90.47	1,737.9	3,023.3	716.1	506.3	209.82	3.413	
9,500.0	6,773.0	6,877.5	6,877.5	77.6	135.9	-90.39	1,737.9	3,023.3	638.8	426.3	212.54	3.006	
9,600.0	6,772.4	6,876.9	6,876.9	80.3	135.8	-90.30	1,737.9	3,023.3	568.6	353.4	215.27	2.642	
9,700.0	6,771.8	6,876.3	6,876.3	83.0	135.8	-90.22	1,737.9	3,023.3	508.6	290.6	218.00	2.333	
9,800.0	6,771.2	6,875.7	6,875.7	85.7	135.8	-90.14	1,737.9	3,023.3	462.5	241.8	220.74	2.095	
9,900.0	6,770.6	6,875.1	6,875.1	88.5	135.8	-90.06	1,737.9	3,023.3	435.0	211.5	223.48	1.947	
9,973.6	6,770.1	6,874.6	6,874.6	90.5	135.8	-90.00	1,737.9	3,023.3	428.7	203.2	225.49	1.901 CC, ES	
10,000.0	6,770.0	6,874.5	6,874.5	91.2	135.8	-89.98	1,737.9	3,023.3	429.6	203.3	226.22	1.899 SF	
10,100.0	6,769.4	6,873.9	6,873.9	93.9	135.8	-89.90	1,737.9	3,023.3	447.0	218.0	228.96	1.952	
10,200.0	6,768.8	6,873.3	6,873.3	96.7	135.8	-89.82	1,737.9	3,023.3	484.9	253.1	231.71	2.093	
10,300.0	6,768.2	6,872.7	6,872.7	99.4	135.8	-89.73	1,737.9	3,023.3	538.9	304.4	234.46	2.298	
10,400.0	6,767.5	6,872.0	6,872.0	102.2	135.7	-89.65	1,737.9	3,023.3	604.7	367.5	237.22	2.549	
10,500.0	6,766.9	6,871.4	6,871.4	104.9	135.7	-89.57	1,737.9	3,023.3	678.9	439.0	239.97	2.829	
10,600.0	6,766.3	6,870.8	6,870.8	107.7	135.7	-89.49	1,737.9	3,023.3	759.1	516.4	242.73	3.127	
10,700.0	6,765.7	6,870.2	6,870.2	110.4	135.7	-89.41	1,737.9	3,023.3	843.5	598.0	245.49	3.436	
10,800.0	6,765.1	6,869.6	6,869.6	113.2	135.7	-89.33	1,737.9	3,023.3	931.0	682.8	248.25	3.750	
10,900.0	6,764.5	6,869.0	6,869.0	115.9	135.7	-89.25	1,737.9	3,023.3	1,020.8	769.8	251.01	4.067	
11,000.0	6,763.9	6,868.4	6,868.4	118.7	135.7	-89.17	1,737.9	3,023.3	1,112.4	858.6	253.77	4.383	
11,100.0	6,763.3	6,867.8	6,867.8	121.5	135.7	-89.09	1,737.9	3,023.3	1,205.3	948.7	256.54	4.698	
11,200.0	6,762.7	6,867.2	6,867.2	124.2	135.6	-89.00	1,737.9	3,023.3	1,299.2	1,039.9	259.30	5.010	
11,300.0	6,762.1	6,866.6	6,866.6	127.0	135.6	-88.92	1,737.9	3,023.3	1,394.0	1,131.9	262.07	5.319	
11,400.0	6,761.5	6,866.0	6,866.0	129.8	135.6	-88.84	1,737.9	3,023.3	1,489.5	1,224.6	264.83	5.624	
11,500.0	6,760.9	6,865.4	6,865.4	132.5	135.6	-88.76	1,737.9	3,023.3	1,585.5	1,317.9	267.60	5.925	
11,600.0	6,760.3	6,864.8	6,864.8	135.3	135.6	-88.68	1,737.9	3,023.3	1,682.0	1,411.6	270.36	6.221	
11,700.0	6,759.6	6,864.1	6,864.1	138.1	135.6	-88.60	1,737.9	3,023.3	1,778.8	1,505.7	273.13	6.513	
11,800.0	6,759.0	6,863.5	6,863.5	140.8	135.6	-88.52	1,737.9	3,023.3	1,876.1	1,600.2	275.90	6.800	
11,900.0	6,758.4	6,862.9	6,862.9	143.6	135.6	-88.44	1,737.9	3,023.3	1,973.5	1,694.9	278.67	7.082	
11,971.6	6,758.0	6,862.5	6,862.5	145.6	135.6	-88.38	1,737.9	3,023.3	2,043.5	1,762.8	280.65	7.281	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	54.5	54.5	0.0	0.2	89.14	43.9	2,920.4	2,920.8				
100.0	100.0	154.5	154.5	0.1	1.8	89.14	43.9	2,920.4	2,920.8	2,918.9	1.89	1,548.561	
200.0	200.0	254.5	254.5	0.3	4.1	89.14	43.9	2,920.4	2,920.8	2,916.4	4.38	666.738	
300.0	300.0	354.5	354.5	0.5	6.1	89.14	43.9	2,920.4	2,920.8	2,914.1	6.66	438.446	
400.0	400.0	454.5	454.5	0.8	8.1	89.14	43.9	2,920.4	2,920.8	2,911.8	8.92	327.499	
500.0	500.0	554.5	554.5	1.0	10.2	89.14	43.9	2,920.4	2,920.8	2,909.6	11.17	261.566	
600.0	600.0	654.5	654.5	1.2	12.2	101.88	43.9	2,920.4	2,921.1	2,907.7	13.41	217.855	
700.0	699.8	754.3	754.3	1.5	14.2	101.96	43.9	2,920.4	2,922.2	2,906.6	15.65	186.754	
800.0	799.5	854.0	854.0	1.7	16.2	102.09	43.9	2,920.4	2,924.0	2,906.1	17.89	163.445	
900.0	898.7	953.2	953.2	1.9	18.2	102.28	43.9	2,920.4	2,926.6	2,906.5	20.14	145.278	
1,000.0	997.5	1,052.0	1,052.0	2.2	20.2	102.50	43.9	2,920.4	2,930.0	2,907.6	22.42	130.687	
1,100.0	1,095.6	1,150.1	1,150.1	2.6	22.2	102.78	43.9	2,920.4	2,934.3	2,909.5	24.72	118.691	
1,200.0	1,193.1	1,247.6	1,247.6	3.0	24.1	103.10	43.9	2,920.4	2,939.4	2,912.4	27.05	108.649	
1,289.7	1,279.7	1,334.2	1,334.2	3.4	25.9	103.41	43.9	2,920.4	2,944.9	2,915.7	29.17	100.943	
1,300.0	1,289.6	1,344.1	1,344.1	3.4	26.1	103.46	43.9	2,920.4	2,945.6	2,916.1	29.42	100.119	
1,400.0	1,385.9	1,440.4	1,440.4	3.9	28.0	103.96	43.9	2,920.4	2,952.2	2,920.4	31.82	92.774	
1,500.0	1,482.1	1,536.6	1,536.6	4.4	30.0	104.45	43.9	2,920.4	2,959.2	2,924.9	34.24	86.432	
1,600.0	1,578.3	1,632.8	1,632.8	4.9	31.9	104.94	43.9	2,920.4	2,966.3	2,929.7	36.66	80.913	
1,700.0	1,674.5	1,729.0	1,729.0	5.5	33.8	105.43	43.9	2,920.4	2,973.7	2,934.6	39.09	76.075	
1,800.0	1,770.8	1,825.3	1,825.3	6.0	35.8	105.92	43.9	2,920.4	2,981.3	2,939.8	41.52	71.803	
1,900.0	1,867.0	1,921.5	1,921.5	6.5	37.7	106.40	43.9	2,920.4	2,989.2	2,945.2	43.95	68.006	
2,000.0	1,963.2	2,017.7	2,017.7	7.1	39.6	106.88	43.9	2,920.4	2,997.3	2,950.9	46.39	64.611	
2,100.0	2,059.4	2,113.9	2,113.9	7.6	41.6	107.36	43.9	2,920.4	3,005.6	2,956.7	48.82	61.561	
2,200.0	2,155.7	2,210.2	2,210.2	8.1	43.5	107.84	43.9	2,920.4	3,014.1	2,962.8	51.26	58.805	
2,300.0	2,251.9	2,306.4	2,306.4	8.7	45.4	108.32	43.9	2,920.4	3,022.8	2,969.1	53.69	56.304	
2,400.0	2,348.1	2,402.6	2,402.6	9.2	47.4	108.79	43.9	2,920.4	3,031.8	2,975.7	56.12	54.026	
2,500.0	2,444.3	2,498.8	2,498.8	9.8	49.3	109.26	43.9	2,920.4	3,041.0	2,982.4	58.55	51.942	
2,600.0	2,540.6	2,595.1	2,595.1	10.3	51.2	109.72	43.9	2,920.4	3,050.4	2,989.4	60.97	50.030	
2,700.0	2,636.8	2,691.3	2,691.3	10.9	53.2	110.19	43.9	2,920.4	3,060.0	2,996.6	63.39	48.269	
2,800.0	2,733.0	2,787.5	2,787.5	11.4	55.1	110.65	43.9	2,920.4	3,069.8	3,004.0	65.81	46.643	
2,900.0	2,829.2	2,883.7	2,883.7	12.0	57.0	111.11	43.9	2,920.4	3,079.8	3,011.6	68.23	45.137	
3,000.0	2,925.5	2,980.0	2,980.0	12.5	59.0	111.56	43.9	2,920.4	3,090.1	3,019.4	70.65	43.739	
3,100.0	3,021.7	3,076.2	3,076.2	13.1	60.9	112.01	43.9	2,920.4	3,100.5	3,027.4	73.06	42.438	
3,200.0	3,117.9	3,172.4	3,172.4	13.6	62.9	112.46	43.9	2,920.4	3,111.1	3,035.7	75.47	41.225	
3,300.0	3,214.1	3,268.6	3,268.6	14.2	64.8	112.91	43.9	2,920.4	3,122.0	3,044.1	77.87	40.091	
3,400.0	3,310.4	3,364.9	3,364.9	14.7	66.7	113.35	43.9	2,920.4	3,133.0	3,052.8	80.28	39.029	
3,500.0	3,406.6	3,461.1	3,461.1	15.3	68.7	113.80	43.9	2,920.4	3,144.3	3,061.6	82.67	38.032	
3,600.0	3,502.8	3,557.3	3,557.3	15.8	70.6	114.23	43.9	2,920.4	3,155.7	3,070.6	85.07	37.096	
3,700.0	3,599.0	3,653.5	3,653.5	16.4	72.5	114.67	43.9	2,920.4	3,167.3	3,079.9	87.46	36.214	
3,800.0	3,695.3	3,749.8	3,749.8	17.0	74.5	115.10	43.9	2,920.4	3,179.2	3,089.3	89.85	35.383	
3,900.0	3,791.5	3,846.0	3,846.0	17.5	76.4	115.53	43.9	2,920.4	3,191.2	3,098.9	92.24	34.598	
4,000.0	3,887.7	3,942.2	3,942.2	18.1	78.3	115.96	43.9	2,920.4	3,203.4	3,108.7	94.62	33.856	
4,100.0	3,983.9	4,038.4	4,038.4	18.6	80.3	116.38	43.9	2,920.4	3,215.7	3,118.7	97.00	33.153	
4,200.0	4,080.2	4,134.7	4,134.7	19.2	82.2	116.80	43.9	2,920.4	3,228.3	3,128.9	99.37	32.488	
4,300.0	4,176.4	4,230.9	4,230.9	19.7	84.1	117.22	43.9	2,920.4	3,241.0	3,139.3	101.74	31.856	
4,400.0	4,272.6	4,327.1	4,327.1	20.3	86.1	117.63	43.9	2,920.4	3,254.0	3,149.8	104.11	31.255	
4,500.0	4,368.8	4,423.3	4,423.3	20.8	88.0	118.04	43.9	2,920.4	3,267.0	3,160.6	106.47	30.684	
4,600.0	4,465.1	4,519.6	4,519.6	21.4	89.9	118.45	43.9	2,920.4	3,280.3	3,171.5	108.83	30.141	
4,700.0	4,561.3	4,615.8	4,615.8	21.9	91.9	118.85	43.9	2,920.4	3,293.8	3,182.6	111.19	29.623	
4,800.0	4,657.5	4,712.0	4,712.0	22.5	93.8	119.25	43.9	2,920.4	3,307.4	3,193.8	113.54	29.129	
4,900.0	4,753.7	4,808.2	4,808.2	23.1	95.8	119.65	43.9	2,920.4	3,321.1	3,205.2	115.89	28.657	
5,000.0	4,850.0	4,904.5	4,904.5	23.6	97.7	120.04	43.9	2,920.4	3,335.1	3,216.8	118.24	28.206	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,000.7	5,000.7	24.2	99.6	120.44	43.9	2,920.4	3,349.2	3,228.6	120.58	27.775	
5,200.0	5,042.4	5,096.9	5,096.9	24.7	101.6	120.83	43.9	2,920.4	3,363.4	3,240.5	122.92	27.363	
5,300.0	5,138.6	5,193.1	5,193.1	25.3	103.5	121.21	43.9	2,920.4	3,377.9	3,252.6	125.26	26.968	
5,400.0	5,234.9	5,289.4	5,289.4	25.8	105.4	121.59	43.9	2,920.4	3,392.4	3,264.9	127.59	26.589	
5,426.2	5,260.1	5,314.6	5,314.6	26.0	105.9	121.69	43.9	2,920.4	3,396.3	3,268.1	128.20	26.492	
5,500.0	5,331.3	5,385.8	5,385.8	26.3	107.4	122.14	43.9	2,920.4	3,406.7	3,276.6	130.04	26.198	
5,600.0	5,428.7	5,483.2	5,483.2	26.7	109.3	122.67	43.9	2,920.4	3,419.3	3,286.8	132.46	25.814	
5,700.0	5,526.7	5,581.2	5,581.2	27.0	111.3	123.13	43.9	2,920.4	3,430.1	3,295.2	134.86	25.435	
5,800.0	5,625.4	5,679.9	5,679.9	27.3	113.3	123.50	43.9	2,920.4	3,439.0	3,301.8	137.22	25.063	
5,900.0	5,724.6	5,779.1	5,779.1	27.6	115.3	123.80	43.9	2,920.4	3,446.1	3,306.6	139.53	24.697	
6,000.0	5,824.1	5,878.6	5,878.6	27.8	117.3	124.01	43.9	2,920.4	3,451.3	3,309.5	141.80	24.340	
6,100.0	5,924.0	5,978.5	5,978.5	28.0	119.3	124.14	43.9	2,920.4	3,454.6	3,310.6	144.00	23.991	
6,200.0	6,023.9	6,078.4	6,078.4	28.1	121.3	124.20	43.9	2,920.4	3,455.9	3,309.7	146.13	23.649	
6,215.9	6,039.8	6,094.3	6,094.3	28.1	121.6	111.48	43.9	2,920.4	3,455.9	3,313.6	142.30	24.285	
6,245.9	6,069.8	6,124.3	6,124.3	28.1	122.2	111.48	43.9	2,920.4	3,455.9	3,312.9	142.95	24.176	
6,250.0	6,073.9	6,128.4	6,128.4	28.1	122.3	21.48	43.9	2,920.4	3,455.9	3,308.7	147.18	23.481	
6,300.0	6,123.9	6,178.4	6,178.4	28.2	123.3	21.55	43.9	2,920.4	3,454.0	3,306.2	147.78	23.372	
6,350.0	6,173.6	6,228.1	6,228.1	28.2	124.3	21.73	43.9	2,920.4	3,448.9	3,301.1	147.74	23.344	
6,400.0	6,222.7	6,277.2	6,277.2	28.2	125.3	22.04	43.9	2,920.4	3,440.5	3,293.5	147.05	23.398	
6,450.0	6,271.2	6,325.7	6,325.7	28.2	126.3	22.48	43.9	2,920.4	3,429.0	3,283.3	145.71	23.533	
6,500.0	6,318.6	6,373.1	6,373.1	28.2	127.2	23.05	43.9	2,920.4	3,414.4	3,270.7	143.76	23.751	
6,550.0	6,364.9	6,419.4	6,419.4	28.2	128.2	23.77	43.9	2,920.4	3,396.8	3,255.5	141.24	24.050	
6,600.0	6,409.7	6,464.2	6,464.2	28.2	129.1	24.67	43.9	2,920.4	3,376.2	3,238.0	138.21	24.428	
6,650.0	6,452.8	6,507.3	6,507.3	28.2	129.9	25.75	43.9	2,920.4	3,352.8	3,218.1	134.77	24.878	
6,700.0	6,494.1	6,548.6	6,548.6	28.2	130.8	27.04	43.9	2,920.4	3,326.7	3,195.7	131.05	25.384	
6,750.0	6,533.3	6,587.8	6,587.8	28.2	131.5	28.59	43.9	2,920.4	3,298.1	3,170.8	127.24	25.920	
6,800.0	6,570.3	6,624.8	6,624.8	28.2	132.3	30.42	43.9	2,920.4	3,267.0	3,143.4	123.58	26.437	
6,850.0	6,604.8	6,659.3	6,659.3	28.2	133.0	32.60	43.9	2,920.4	3,233.7	3,113.3	120.37	26.864	
6,900.0	6,636.7	6,691.2	6,691.2	28.2	133.6	35.18	43.9	2,920.4	3,198.3	3,080.3	118.02	27.100	
6,950.0	6,665.8	6,720.3	6,720.3	28.2	134.2	38.23	43.9	2,920.4	3,161.1	3,044.1	116.96	27.028	
7,000.0	6,692.1	6,746.6	6,746.6	28.2	134.7	41.85	43.9	2,920.4	3,122.1	3,004.5	117.64	26.540	
7,050.0	6,715.3	6,769.8	6,769.8	28.2	135.2	46.11	43.9	2,920.4	3,081.7	2,961.3	120.42	25.592	
7,100.0	6,735.4	6,789.9	6,789.9	28.2	135.6	51.11	43.9	2,920.4	3,040.0	2,914.6	125.39	24.244	
7,150.0	6,752.2	6,806.7	6,806.7	28.3	135.9	56.90	43.9	2,920.4	2,997.3	2,865.0	132.28	22.659	
7,200.0	6,765.7	6,820.2	6,820.2	28.3	136.2	63.50	43.9	2,920.4	2,953.7	2,813.4	140.31	21.052	
7,250.0	6,775.8	6,830.3	6,830.3	28.4	136.4	70.82	43.9	2,920.4	2,909.6	2,761.3	148.29	19.620	
7,300.0	6,782.5	6,837.0	6,837.0	28.6	136.6	78.65	43.9	2,920.4	2,865.0	2,710.1	154.91	18.495	
7,350.0	6,785.7	6,840.2	6,840.2	28.8	136.6	86.68	43.9	2,920.4	2,820.4	2,661.3	159.06	17.732	
7,375.3	6,786.0	6,840.5	6,840.5	29.0	136.6	90.69	43.9	2,920.4	2,797.8	2,637.8	160.04	17.481	
7,400.0	6,785.8	6,840.3	6,840.3	29.1	136.6	90.68	43.9	2,920.4	2,775.8	2,615.3	160.49	17.296	
7,500.0	6,785.2	6,839.7	6,839.7	30.0	136.6	90.66	43.9	2,920.4	2,687.2	2,524.8	162.40	16.546	
7,600.0	6,784.6	6,839.1	6,839.1	31.2	136.6	90.63	43.9	2,920.4	2,599.4	2,434.9	164.47	15.805	
7,700.0	6,784.0	6,838.5	6,838.5	32.8	136.6	90.60	43.9	2,920.4	2,512.5	2,345.8	166.65	15.077	
7,800.0	6,783.4	6,837.9	6,837.9	34.7	136.6	90.57	43.9	2,920.4	2,426.6	2,257.7	168.92	14.366	
7,900.0	6,782.8	6,837.3	6,837.3	36.8	136.6	90.54	43.9	2,920.4	2,341.9	2,170.6	171.27	13.674	
8,000.0	6,782.2	6,836.7	6,836.7	39.1	136.5	90.52	43.9	2,920.4	2,258.4	2,084.7	173.68	13.003	
8,100.0	6,781.6	6,836.1	6,836.1	41.4	136.5	90.49	43.9	2,920.4	2,176.3	2,000.1	176.15	12.355	
8,200.0	6,780.9	6,835.4	6,835.4	43.8	136.5	90.46	43.9	2,920.4	2,095.7	1,917.1	178.65	11.731	
8,300.0	6,780.3	6,834.8	6,834.8	46.2	136.5	90.43	43.9	2,920.4	2,016.9	1,835.7	181.19	11.131	
8,400.0	6,779.7	6,834.2	6,834.2	48.7	136.5	90.41	43.9	2,920.4	1,940.0	1,756.3	183.76	10.557	
8,500.0	6,779.1	6,833.6	6,833.6	51.2	136.5	90.38	43.9	2,920.4	1,865.4	1,679.0	186.35	10.010	
8,600.0	6,778.5	6,833.0	6,833.0	53.8	136.5	90.35	43.9	2,920.4	1,793.2	1,604.2	188.97	9.489	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	6,777.9	6,832.4	6,832.4	56.4	136.5	90.32	43.9	2,920.4	1,723.8	1,532.2	191.60	8.997	
8,800.0	6,777.3	6,831.8	6,831.8	59.0	136.4	90.30	43.9	2,920.4	1,657.5	1,463.2	194.25	8.533	
8,900.0	6,776.7	6,831.2	6,831.2	61.6	136.4	90.27	43.9	2,920.4	1,594.7	1,397.8	196.91	8.099	
9,000.0	6,776.1	6,830.6	6,830.6	64.2	136.4	90.24	43.9	2,920.4	1,535.9	1,336.3	199.58	7.696	
9,100.0	6,775.5	6,830.0	6,830.0	66.9	136.4	90.21	43.9	2,920.4	1,481.5	1,279.3	202.26	7.325	
9,200.0	6,774.9	6,829.4	6,829.4	69.6	136.4	90.19	43.9	2,920.4	1,432.1	1,227.1	204.96	6.987	
9,300.0	6,774.2	6,828.7	6,828.7	72.2	136.4	90.16	43.9	2,920.4	1,388.0	1,180.4	207.66	6.684	
9,400.0	6,773.6	6,828.1	6,828.1	74.9	136.4	90.13	43.9	2,920.4	1,350.0	1,139.6	210.36	6.417	
9,500.0	6,773.0	6,827.5	6,827.5	77.6	136.4	90.10	43.9	2,920.4	1,318.5	1,105.4	213.08	6.188	
9,600.0	6,772.4	6,826.9	6,826.9	80.3	136.3	90.07	43.9	2,920.4	1,293.9	1,078.1	215.80	5.996	
9,700.0	6,771.8	6,826.3	6,826.3	83.0	136.3	90.05	43.9	2,920.4	1,276.8	1,058.2	218.52	5.843	
9,800.0	6,771.2	6,825.7	6,825.7	85.7	136.3	90.02	43.9	2,920.4	1,267.3	1,046.0	221.25	5.728	
9,870.7	6,770.8	6,825.3	6,825.3	87.7	136.3	90.00	43.9	2,920.4	1,265.3	1,042.1	223.18	5.669 CC	
9,900.0	6,770.6	6,825.1	6,825.1	88.5	136.3	89.99	43.9	2,920.4	1,265.7	1,041.7	223.98	5.651 ES	
10,000.0	6,770.0	6,824.5	6,824.5	91.2	136.3	89.96	43.9	2,920.4	1,271.9	1,045.2	226.72	5.610	
10,100.0	6,769.4	6,823.9	6,823.9	93.9	136.3	89.94	43.9	2,920.4	1,285.9	1,056.5	229.46	5.604 SF	
10,200.0	6,768.8	6,823.3	6,823.3	96.7	136.3	89.91	43.9	2,920.4	1,307.5	1,075.3	232.20	5.631	
10,300.0	6,768.2	6,822.7	6,822.7	99.4	136.3	89.88	43.9	2,920.4	1,336.2	1,101.2	234.95	5.687	
10,400.0	6,767.5	6,822.0	6,822.0	102.2	136.3	89.85	43.9	2,920.4	1,371.6	1,133.9	237.70	5.770	
10,500.0	6,766.9	6,821.4	6,821.4	104.9	136.2	89.83	43.9	2,920.4	1,413.2	1,172.7	240.45	5.877	
10,600.0	6,766.3	6,820.8	6,820.8	107.7	136.2	89.80	43.9	2,920.4	1,460.5	1,217.3	243.20	6.005	
10,700.0	6,765.7	6,820.2	6,820.2	110.4	136.2	89.77	43.9	2,920.4	1,512.9	1,266.9	245.96	6.151	
10,800.0	6,765.1	6,819.6	6,819.6	113.2	136.2	89.74	43.9	2,920.4	1,569.9	1,321.2	248.72	6.312	
10,900.0	6,764.5	6,819.0	6,819.0	115.9	136.2	89.72	43.9	2,920.4	1,631.1	1,379.6	251.47	6.486	
11,000.0	6,763.9	6,818.4	6,818.4	118.7	136.2	89.69	43.9	2,920.4	1,696.0	1,441.8	254.24	6.671	
11,100.0	6,763.3	6,817.8	6,817.8	121.5	136.2	89.66	43.9	2,920.4	1,764.2	1,507.2	257.00	6.864	
11,200.0	6,762.7	6,817.2	6,817.2	124.2	136.2	89.63	43.9	2,920.4	1,835.2	1,575.5	259.76	7.065	
11,300.0	6,762.1	6,816.6	6,816.6	127.0	136.1	89.61	43.9	2,920.4	1,908.9	1,646.4	262.53	7.271	
11,400.0	6,761.5	6,816.0	6,816.0	129.8	136.1	89.58	43.9	2,920.4	1,984.9	1,719.6	265.29	7.482	
11,500.0	6,760.9	6,815.4	6,815.4	132.5	136.1	89.55	43.9	2,920.4	2,062.9	1,794.9	268.06	7.696	
11,600.0	6,760.3	6,814.8	6,814.8	135.3	136.1	89.52	43.9	2,920.4	2,142.8	1,872.0	270.83	7.912	
11,700.0	6,759.6	6,814.1	6,814.1	138.1	136.1	89.50	43.9	2,920.4	2,224.3	1,950.7	273.60	8.130	
11,800.0	6,759.0	6,813.5	6,813.5	140.8	136.1	89.47	43.9	2,920.4	2,307.2	2,030.8	276.37	8.348	
11,900.0	6,758.4	6,812.9	6,812.9	143.6	136.1	89.44	43.9	2,920.4	2,391.5	2,112.3	279.14	8.567	
11,971.6	6,758.0	6,812.5	6,812.5	145.6	136.1	89.42	43.9	2,920.4	2,452.5	2,171.4	281.12	8.724	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	34.5	34.5	0.0	0.2	87.07	229.9	4,492.1	4,498.0				
100.0	100.0	134.5	134.5	0.1	1.5	87.07	229.9	4,492.1	4,498.0	4,496.3	1.62	2,770.317	
200.0	200.0	234.5	234.5	0.3	3.8	87.07	229.9	4,492.1	4,498.0	4,493.8	4.15	1,083.809	
300.0	300.0	334.5	334.5	0.5	5.9	87.07	229.9	4,492.1	4,498.0	4,491.5	6.44	698.143	
400.0	400.0	434.5	434.5	0.8	7.9	87.07	229.9	4,492.1	4,498.0	4,489.2	8.70	516.734	
500.0	500.0	534.5	534.5	1.0	10.0	87.07	229.9	4,492.1	4,498.0	4,487.0	10.96	410.567	
600.0	600.0	634.5	634.5	1.2	12.0	99.81	229.9	4,492.1	4,498.3	4,485.1	13.20	340.790	
700.0	699.8	734.3	734.3	1.5	14.0	99.85	229.9	4,492.1	4,499.1	4,483.7	15.44	291.397	
800.0	799.5	834.0	834.0	1.7	16.0	99.93	229.9	4,492.1	4,500.6	4,483.0	17.68	254.495	
900.0	898.7	933.2	933.2	1.9	18.0	100.04	229.9	4,492.1	4,502.8	4,482.8	19.94	225.790	
1,000.0	997.5	1,032.0	1,032.0	2.2	20.0	100.18	229.9	4,492.1	4,505.6	4,483.3	22.22	202.757	
1,100.0	1,095.6	1,130.1	1,130.1	2.6	22.0	100.35	229.9	4,492.1	4,509.0	4,484.5	24.53	183.825	
1,200.0	1,193.1	1,227.6	1,227.6	3.0	23.9	100.54	229.9	4,492.1	4,513.2	4,486.3	26.87	167.968	
1,289.7	1,279.7	1,314.2	1,314.2	3.4	25.7	100.73	229.9	4,492.1	4,517.6	4,488.6	29.00	155.787	
1,300.0	1,289.6	1,324.1	1,324.1	3.4	25.9	100.76	229.9	4,492.1	4,518.1	4,488.9	29.25	154.485	
1,400.0	1,385.9	1,420.4	1,420.4	3.9	27.8	101.09	229.9	4,492.1	4,523.5	4,491.8	31.66	142.892	
1,500.0	1,482.1	1,516.6	1,516.6	4.4	29.7	101.42	229.9	4,492.1	4,529.0	4,494.9	34.08	132.886	
1,600.0	1,578.3	1,612.8	1,612.8	4.9	31.7	101.74	229.9	4,492.1	4,534.7	4,498.2	36.52	124.181	
1,700.0	1,674.5	1,709.0	1,709.0	5.5	33.6	102.06	229.9	4,492.1	4,540.5	4,501.5	38.96	116.548	
1,800.0	1,770.8	1,805.3	1,805.3	6.0	35.6	102.39	229.9	4,492.1	4,546.5	4,505.1	41.40	109.807	
1,900.0	1,867.0	1,901.5	1,901.5	6.5	37.5	102.71	229.9	4,492.1	4,552.6	4,508.8	43.85	103.815	
2,000.0	1,963.2	1,997.7	1,997.7	7.1	39.4	103.03	229.9	4,492.1	4,558.9	4,512.6	46.30	98.456	
2,100.0	2,059.4	2,093.9	2,093.9	7.6	41.4	103.35	229.9	4,492.1	4,565.3	4,516.6	48.76	93.637	
2,200.0	2,155.7	2,190.2	2,190.2	8.1	43.3	103.67	229.9	4,492.1	4,571.9	4,520.7	51.21	89.282	
2,300.0	2,251.9	2,286.4	2,286.4	8.7	45.2	103.99	229.9	4,492.1	4,578.7	4,525.0	53.66	85.327	
2,400.0	2,348.1	2,382.6	2,382.6	9.2	47.2	104.31	229.9	4,492.1	4,585.6	4,529.5	56.11	81.721	
2,500.0	2,444.3	2,478.8	2,478.8	9.8	49.1	104.63	229.9	4,492.1	4,592.6	4,534.1	58.56	78.420	
2,600.0	2,540.6	2,575.1	2,575.1	10.3	51.0	104.94	229.9	4,492.1	4,599.8	4,538.8	61.02	75.388	
2,700.0	2,636.8	2,671.3	2,671.3	10.9	53.0	105.26	229.9	4,492.1	4,607.2	4,543.7	63.47	72.593	
2,800.0	2,733.0	2,767.5	2,767.5	11.4	54.9	105.58	229.9	4,492.1	4,614.7	4,548.8	65.91	70.010	
2,900.0	2,829.2	2,863.7	2,863.7	12.0	56.8	105.89	229.9	4,492.1	4,622.3	4,554.0	68.36	67.615	
3,000.0	2,925.5	2,960.0	2,960.0	12.5	58.8	106.20	229.9	4,492.1	4,630.1	4,559.3	70.81	65.389	
3,100.0	3,021.7	3,056.2	3,056.2	13.1	60.7	106.51	229.9	4,492.1	4,638.1	4,564.8	73.25	63.315	
3,200.0	3,117.9	3,152.4	3,152.4	13.6	62.7	106.82	229.9	4,492.1	4,646.2	4,570.5	75.70	61.378	
3,300.0	3,214.1	3,248.6	3,248.6	14.2	64.6	107.13	229.9	4,492.1	4,654.4	4,576.2	78.14	59.565	
3,400.0	3,310.4	3,344.9	3,344.9	14.7	66.5	107.44	229.9	4,492.1	4,662.8	4,582.2	80.58	57.865	
3,500.0	3,406.6	3,441.1	3,441.1	15.3	68.5	107.75	229.9	4,492.1	4,671.3	4,588.3	83.02	56.268	
3,600.0	3,502.8	3,537.3	3,537.3	15.8	70.4	108.06	229.9	4,492.1	4,679.9	4,594.5	85.46	54.765	
3,700.0	3,599.0	3,633.5	3,633.5	16.4	72.3	108.36	229.9	4,492.1	4,688.7	4,600.9	87.89	53.348	
3,800.0	3,695.3	3,729.8	3,729.8	17.0	74.3	108.67	229.9	4,492.1	4,697.7	4,607.4	90.32	52.010	
3,900.0	3,791.5	3,826.0	3,826.0	17.5	76.2	108.97	229.9	4,492.1	4,706.8	4,614.0	92.75	50.745	
4,000.0	3,887.7	3,922.2	3,922.2	18.1	78.1	109.27	229.9	4,492.1	4,716.0	4,620.8	95.18	49.547	
4,100.0	3,983.9	4,018.4	4,018.4	18.6	80.1	109.57	229.9	4,492.1	4,725.4	4,627.8	97.61	48.411	
4,200.0	4,080.2	4,114.7	4,114.7	19.2	82.0	109.87	229.9	4,492.1	4,734.9	4,634.8	100.03	47.332	
4,300.0	4,176.4	4,210.9	4,210.9	19.7	83.9	110.17	229.9	4,492.1	4,744.5	4,642.0	102.46	46.307	
4,400.0	4,272.6	4,307.1	4,307.1	20.3	85.9	110.47	229.9	4,492.1	4,754.3	4,649.4	104.88	45.331	
4,500.0	4,368.8	4,403.3	4,403.3	20.8	87.8	110.77	229.9	4,492.1	4,764.2	4,656.9	107.30	44.402	
4,600.0	4,465.1	4,499.6	4,499.6	21.4	89.7	111.06	229.9	4,492.1	4,774.2	4,664.5	109.71	43.515	
4,700.0	4,561.3	4,595.8	4,595.8	21.9	91.7	111.36	229.9	4,492.1	4,784.4	4,672.3	112.13	42.669	
4,800.0	4,657.5	4,692.0	4,692.0	22.5	93.6	111.65	229.9	4,492.1	4,794.7	4,680.2	114.54	41.861	
4,900.0	4,753.7	4,788.2	4,788.2	23.1	95.6	111.94	229.9	4,492.1	4,805.2	4,688.2	116.95	41.087	
5,000.0	4,850.0	4,884.5	4,884.5	23.6	97.5	112.23	229.9	4,492.1	4,815.7	4,696.4	119.36	40.347	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	4,980.7	4,980.7	24.2	99.4	112.52	229.9	4,492.1	4,826.5	4,704.7	121.76	39.638	
5,200.0	5,042.4	5,076.9	5,076.9	24.7	101.4	112.81	229.9	4,492.1	4,837.3	4,713.1	124.17	38.958	
5,300.0	5,138.6	5,173.1	5,173.1	25.3	103.3	113.10	229.9	4,492.1	4,848.3	4,721.7	126.57	38.306	
5,400.0	5,234.9	5,269.4	5,269.4	25.8	105.2	113.38	229.9	4,492.1	4,859.3	4,730.4	128.97	37.679	
5,426.2	5,260.1	5,294.6	5,294.6	26.0	105.7	113.46	229.9	4,492.1	4,862.3	4,732.7	129.59	37.519	
5,500.0	5,331.3	5,365.8	5,365.8	26.3	107.2	113.80	229.9	4,492.1	4,870.2	4,738.8	131.41	37.062	
5,600.0	5,428.7	5,463.2	5,463.2	26.7	109.1	114.22	229.9	4,492.1	4,879.8	4,746.0	133.79	36.474	
5,700.0	5,526.7	5,561.2	5,561.2	27.0	111.1	114.58	229.9	4,492.1	4,888.0	4,751.9	136.15	35.903	
5,800.0	5,625.4	5,659.9	5,659.9	27.3	113.1	114.87	229.9	4,492.1	4,894.9	4,756.4	138.47	35.350	
5,900.0	5,724.6	5,759.1	5,759.1	27.6	115.1	115.11	229.9	4,492.1	4,900.3	4,759.5	140.75	34.814	
6,000.0	5,824.1	5,858.6	5,858.6	27.8	117.1	115.27	229.9	4,492.1	4,904.2	4,761.2	142.99	34.297	
6,100.0	5,924.0	5,958.5	5,958.5	28.0	119.1	115.38	229.9	4,492.1	4,906.7	4,761.5	145.18	33.797	
6,200.0	6,023.9	6,058.4	6,058.4	28.1	121.1	115.42	229.9	4,492.1	4,907.7	4,760.4	147.31	33.315	
6,215.9	6,039.8	6,074.3	6,074.3	28.1	121.4	102.70	229.9	4,492.1	4,907.7	4,767.4	140.32	34.976	
6,245.9	6,069.8	6,104.3	6,104.3	28.1	122.0	102.70	229.9	4,492.1	4,907.7	4,766.8	140.96	34.817	
6,250.0	6,073.9	6,108.4	6,108.4	28.1	122.1	12.70	229.9	4,492.1	4,907.7	4,759.3	148.36	33.080	
6,300.0	6,123.9	6,158.4	6,158.4	28.2	123.1	12.74	229.9	4,492.1	4,905.7	4,756.8	148.95	32.935	
6,350.0	6,173.6	6,208.1	6,208.1	28.2	124.1	12.85	229.9	4,492.1	4,900.3	4,751.5	148.84	32.924	
6,400.0	6,222.7	6,257.2	6,257.2	28.2	125.1	13.04	229.9	4,492.1	4,891.6	4,743.6	148.01	33.049	
6,450.0	6,271.2	6,305.7	6,305.7	28.2	126.1	13.30	229.9	4,492.1	4,879.5	4,733.1	146.47	33.315	
6,500.0	6,318.6	6,353.1	6,353.1	28.2	127.0	13.64	229.9	4,492.1	4,864.2	4,720.0	144.22	33.728	
6,550.0	6,364.9	6,399.4	6,399.4	28.2	128.0	14.08	229.9	4,492.1	4,845.7	4,704.4	141.27	34.300	
6,600.0	6,409.7	6,444.2	6,444.2	28.2	128.9	14.62	229.9	4,492.1	4,824.1	4,686.4	137.67	35.041	
6,650.0	6,452.8	6,487.3	6,487.3	28.2	129.7	15.28	229.9	4,492.1	4,799.5	4,666.0	133.45	35.964	
6,700.0	6,494.1	6,528.6	6,528.6	28.2	130.6	16.08	229.9	4,492.1	4,772.0	4,643.3	128.69	37.080	
6,750.0	6,533.3	6,567.8	6,567.8	28.2	131.3	17.05	229.9	4,492.1	4,741.8	4,618.3	123.49	38.397	
6,800.0	6,570.3	6,604.8	6,604.8	28.2	132.1	18.22	229.9	4,492.1	4,709.0	4,591.0	118.00	39.908	
6,850.0	6,604.8	6,639.3	6,639.3	28.2	132.8	19.65	229.9	4,492.1	4,673.9	4,561.4	112.41	41.577	
6,900.0	6,636.7	6,671.2	6,671.2	28.2	133.4	21.39	229.9	4,492.1	4,636.4	4,529.4	107.05	43.309	
6,950.0	6,665.8	6,700.3	6,700.3	28.2	134.0	23.54	229.9	4,492.1	4,596.9	4,494.6	102.37	44.907	
7,000.0	6,692.1	6,726.6	6,726.6	28.2	134.5	26.23	229.9	4,492.1	4,555.6	4,456.6	98.98	46.024	
7,050.0	6,715.3	6,749.8	6,749.8	28.2	135.0	29.62	229.9	4,492.1	4,512.6	4,414.8	97.77	46.157	
7,100.0	6,735.4	6,769.9	6,769.9	28.2	135.4	33.98	229.9	4,492.1	4,468.2	4,368.4	99.75	44.796	
7,150.0	6,752.2	6,786.7	6,786.7	28.3	135.7	39.66	229.9	4,492.1	4,422.5	4,316.6	105.92	41.754	
7,200.0	6,765.7	6,800.2	6,800.2	28.3	136.0	47.12	229.9	4,492.1	4,375.8	4,259.0	116.80	37.465	
7,250.0	6,775.8	6,810.3	6,810.3	28.4	136.2	56.88	229.9	4,492.1	4,328.4	4,196.8	131.60	32.891	
7,300.0	6,782.5	6,817.0	6,817.0	28.6	136.4	69.23	229.9	4,492.1	4,280.4	4,133.2	147.20	29.079	
7,350.0	6,785.7	6,820.2	6,820.2	28.8	136.4	83.69	229.9	4,492.1	4,232.2	4,074.2	157.97	26.791	
7,375.3	6,786.0	6,820.5	6,820.5	29.0	136.4	91.32	229.9	4,492.1	4,207.8	4,047.9	159.86	26.322	
7,400.0	6,785.8	6,820.3	6,820.3	29.1	136.4	91.31	229.9	4,492.1	4,183.9	4,023.6	160.30	26.099	
7,500.0	6,785.2	6,819.7	6,819.7	30.0	136.4	91.28	229.9	4,492.1	4,087.3	3,925.1	162.22	25.197	
7,600.0	6,784.6	6,819.1	6,819.1	31.2	136.4	91.25	229.9	4,492.1	3,991.0	3,826.7	164.28	24.294	
7,700.0	6,784.0	6,818.5	6,818.5	32.8	136.4	91.21	229.9	4,492.1	3,894.8	3,728.3	166.46	23.398	
7,800.0	6,783.4	6,817.9	6,817.9	34.7	136.4	91.18	229.9	4,492.1	3,798.8	3,630.1	168.73	22.514	
7,900.0	6,782.8	6,817.3	6,817.3	36.8	136.4	91.15	229.9	4,492.1	3,703.0	3,532.0	171.08	21.645	
8,000.0	6,782.2	6,816.7	6,816.7	39.1	136.3	91.12	229.9	4,492.1	3,607.5	3,434.0	173.50	20.793	
8,100.0	6,781.6	6,816.1	6,816.1	41.4	136.3	91.08	229.9	4,492.1	3,512.2	3,336.2	175.96	19.960	
8,200.0	6,780.9	6,815.4	6,815.4	43.8	136.3	91.05	229.9	4,492.1	3,417.2	3,238.7	178.47	19.148	
8,300.0	6,780.3	6,814.8	6,814.8	46.2	136.3	91.02	229.9	4,492.1	3,322.5	3,141.5	181.01	18.356	
8,400.0	6,779.7	6,814.2	6,814.2	48.7	136.3	90.99	229.9	4,492.1	3,228.0	3,044.5	183.57	17.584	
8,500.0	6,779.1	6,813.6	6,813.6	51.2	136.3	90.95	229.9	4,492.1	3,134.0	2,947.8	186.17	16.834	
8,600.0	6,778.5	6,813.0	6,813.0	53.8	136.3	90.92	229.9	4,492.1	3,040.3	2,851.5	188.78	16.105	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	6,777.9	6,812.4	6,812.4	56.4	136.3	90.89	229.9	4,492.1	2,947.0	2,755.6	191.41	15.396	
8,800.0	6,777.3	6,811.8	6,811.8	59.0	136.2	90.86	229.9	4,492.1	2,854.2	2,660.1	194.06	14.708	
8,900.0	6,776.7	6,811.2	6,811.2	61.6	136.2	90.82	229.9	4,492.1	2,761.9	2,565.2	196.72	14.039	
9,000.0	6,776.1	6,810.6	6,810.6	64.2	136.2	90.79	229.9	4,492.1	2,670.1	2,470.7	199.40	13.391	
9,100.0	6,775.5	6,810.0	6,810.0	66.9	136.2	90.76	229.9	4,492.1	2,579.0	2,376.9	202.08	12.762	
9,200.0	6,774.9	6,809.4	6,809.4	69.6	136.2	90.73	229.9	4,492.1	2,488.5	2,283.7	204.77	12.153	
9,300.0	6,774.2	6,808.7	6,808.7	72.2	136.2	90.69	229.9	4,492.1	2,398.8	2,191.3	207.47	11.562	
9,400.0	6,773.6	6,808.1	6,808.1	74.9	136.2	90.66	229.9	4,492.1	2,309.9	2,099.8	210.18	10.990	
9,500.0	6,773.0	6,807.5	6,807.5	77.6	136.2	90.63	229.9	4,492.1	2,222.0	2,009.1	212.89	10.437	
9,600.0	6,772.4	6,806.9	6,806.9	80.3	136.1	90.60	229.9	4,492.1	2,135.2	1,919.5	215.61	9.903	
9,700.0	6,771.8	6,806.3	6,806.3	83.0	136.1	90.56	229.9	4,492.1	2,049.5	1,831.2	218.34	9.387	
9,800.0	6,771.2	6,805.7	6,805.7	85.7	136.1	90.53	229.9	4,492.1	1,965.2	1,744.1	221.07	8.890	
9,900.0	6,770.6	6,805.1	6,805.1	88.5	136.1	90.50	229.9	4,492.1	1,882.4	1,658.6	223.80	8.411	
10,000.0	6,770.0	6,804.5	6,804.5	91.2	136.1	90.47	229.9	4,492.1	1,801.4	1,574.9	226.54	7.952	
10,100.0	6,769.4	6,803.9	6,803.9	93.9	136.1	90.43	229.9	4,492.1	1,722.4	1,493.1	229.28	7.512	
10,200.0	6,768.8	6,803.3	6,803.3	96.7	136.1	90.40	229.9	4,492.1	1,645.7	1,413.6	232.02	7.093	
10,300.0	6,768.2	6,802.7	6,802.7	99.4	136.1	90.37	229.9	4,492.1	1,571.5	1,336.8	234.77	6.694	
10,400.0	6,767.5	6,802.0	6,802.0	102.2	136.0	90.34	229.9	4,492.1	1,500.4	1,262.9	237.52	6.317	
10,500.0	6,766.9	6,801.4	6,801.4	104.9	136.0	90.30	229.9	4,492.1	1,432.8	1,192.5	240.27	5.963	
10,600.0	6,766.3	6,800.8	6,800.8	107.7	136.0	90.27	229.9	4,492.1	1,369.1	1,126.0	243.03	5.633	
10,700.0	6,765.7	6,800.2	6,800.2	110.4	136.0	90.24	229.9	4,492.1	1,309.9	1,064.1	245.78	5.330	
10,800.0	6,765.1	6,799.6	6,799.6	113.2	136.0	90.21	229.9	4,492.1	1,256.0	1,007.4	248.54	5.053	
10,900.0	6,764.5	6,799.0	6,799.0	115.9	136.0	90.17	229.9	4,492.1	1,207.9	956.6	251.30	4.806	
11,000.0	6,763.9	6,798.4	6,798.4	118.7	136.0	90.14	229.9	4,492.1	1,166.4	912.3	254.06	4.591	
11,100.0	6,763.3	6,797.8	6,797.8	121.5	136.0	90.11	229.9	4,492.1	1,132.3	875.4	256.83	4.409	
11,200.0	6,762.7	6,797.2	6,797.2	124.2	136.0	90.08	229.9	4,492.1	1,106.1	846.6	259.59	4.261	
11,300.0	6,762.1	6,796.6	6,796.6	127.0	135.9	90.05	229.9	4,492.1	1,088.6	826.3	262.36	4.149	
11,400.0	6,761.5	6,796.0	6,796.0	129.8	135.9	90.01	229.9	4,492.1	1,080.1	815.0	265.12	4.074	
11,442.3	6,761.2	6,795.7	6,795.7	130.9	135.9	90.00	229.9	4,492.1	1,079.3	813.0	266.29	4.053 CC	
11,500.0	6,760.9	6,795.4	6,795.4	132.5	135.9	89.98	229.9	4,492.1	1,080.8	812.9	267.89	4.035 ES	
11,600.0	6,760.3	6,794.8	6,794.8	135.3	135.9	89.95	229.9	4,492.1	1,090.7	820.1	270.66	4.030 SF	
11,700.0	6,759.6	6,794.1	6,794.1	138.1	135.9	89.92	229.9	4,492.1	1,109.6	836.2	273.43	4.058	
11,800.0	6,759.0	6,793.5	6,793.5	140.8	135.9	89.88	229.9	4,492.1	1,137.0	860.8	276.20	4.117	
11,900.0	6,758.4	6,792.9	6,792.9	143.6	135.9	89.85	229.9	4,492.1	1,172.3	893.3	278.97	4.202	
11,971.6	6,758.0	6,792.5	6,792.5	145.6	135.9	89.83	229.9	4,492.1	1,202.1	921.1	280.96	4.278	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	94.5	94.5	0.0	0.0	69.32	1,738.2	4,606.0	4,923.1				
100.0	100.0	194.5	194.5	0.1	1.2	69.32	1,738.2	4,606.0	4,923.1	4,921.8	1.25	3,923.748	
200.0	200.0	294.5	294.5	0.3	3.4	69.32	1,738.2	4,606.0	4,923.1	4,919.4	3.71	1,328.765	
300.0	300.0	394.5	394.5	0.5	5.5	69.32	1,738.2	4,606.0	4,923.1	4,917.1	6.02	817.934	
400.0	400.0	494.5	494.5	0.8	7.5	69.32	1,738.2	4,606.0	4,923.1	4,914.8	8.29	594.022	
500.0	500.0	594.5	594.5	1.0	9.5	69.32	1,738.2	4,606.0	4,923.1	4,912.6	10.54	466.989	
600.0	600.0	694.5	694.5	1.2	11.6	82.07	1,738.2	4,606.0	4,922.9	4,910.1	12.79	384.938	
700.0	699.8	794.3	794.3	1.5	13.6	82.14	1,738.2	4,606.0	4,922.1	4,907.1	15.03	327.455	
800.0	799.5	894.0	894.0	1.7	15.6	82.27	1,738.2	4,606.0	4,921.0	4,903.7	17.28	284.795	
900.0	898.7	993.2	993.2	1.9	17.6	82.44	1,738.2	4,606.0	4,919.3	4,899.8	19.54	251.752	
1,000.0	997.5	1,092.0	1,092.0	2.2	19.6	82.66	1,738.2	4,606.0	4,917.3	4,895.4	21.82	225.308	
1,100.0	1,095.6	1,190.1	1,190.1	2.6	21.6	82.92	1,738.2	4,606.0	4,914.8	4,890.7	24.14	203.601	
1,200.0	1,193.1	1,287.6	1,287.6	3.0	23.5	83.23	1,738.2	4,606.0	4,912.0	4,885.6	26.49	185.424	
1,289.7	1,279.7	1,374.2	1,374.2	3.4	25.3	83.55	1,738.2	4,606.0	4,909.3	4,880.7	28.63	171.455	
1,300.0	1,289.6	1,384.1	1,384.1	3.4	25.5	83.58	1,738.2	4,606.0	4,909.0	4,880.1	28.88	169.965	
1,400.0	1,385.9	1,480.4	1,480.4	3.9	27.4	83.88	1,738.2	4,606.0	4,905.9	4,874.6	31.31	156.708	
1,500.0	1,482.1	1,576.6	1,576.6	4.4	29.3	84.19	1,738.2	4,606.0	4,902.9	4,869.2	33.75	145.289	
1,600.0	1,578.3	1,672.8	1,672.8	4.9	31.3	84.49	1,738.2	4,606.0	4,900.2	4,864.0	36.20	135.372	
1,700.0	1,674.5	1,769.0	1,769.0	5.5	33.2	84.79	1,738.2	4,606.0	4,897.5	4,858.9	38.66	126.690	
1,800.0	1,770.8	1,865.3	1,865.3	6.0	35.2	85.10	1,738.2	4,606.0	4,895.0	4,853.9	41.12	119.032	
1,900.0	1,867.0	1,961.5	1,961.5	6.5	37.1	85.41	1,738.2	4,606.0	4,892.7	4,849.1	43.59	112.232	
2,000.0	1,963.2	2,057.7	2,057.7	7.1	39.0	85.71	1,738.2	4,606.0	4,890.5	4,844.4	46.07	106.156	
2,100.0	2,059.4	2,153.9	2,153.9	7.6	41.0	86.02	1,738.2	4,606.0	4,888.5	4,839.9	48.55	100.696	
2,200.0	2,155.7	2,250.2	2,250.2	8.1	42.9	86.32	1,738.2	4,606.0	4,886.6	4,835.5	51.03	95.766	
2,300.0	2,251.9	2,346.4	2,346.4	8.7	44.8	86.63	1,738.2	4,606.0	4,884.8	4,831.3	53.51	91.292	
2,400.0	2,348.1	2,442.6	2,442.6	9.2	46.8	86.94	1,738.2	4,606.0	4,883.2	4,827.3	55.99	87.215	
2,500.0	2,444.3	2,538.8	2,538.8	9.8	48.7	87.24	1,738.2	4,606.0	4,881.8	4,823.3	58.47	83.485	
2,600.0	2,540.6	2,635.1	2,635.1	10.3	50.6	87.55	1,738.2	4,606.0	4,880.5	4,819.6	60.96	80.061	
2,700.0	2,636.8	2,731.3	2,731.3	10.9	52.6	87.86	1,738.2	4,606.0	4,879.4	4,815.9	63.45	76.906	
2,800.0	2,733.0	2,827.5	2,827.5	11.4	54.5	88.17	1,738.2	4,606.0	4,878.4	4,812.5	65.93	73.991	
2,900.0	2,829.2	2,923.7	2,923.7	12.0	56.4	88.47	1,738.2	4,606.0	4,877.6	4,809.2	68.42	71.289	
3,000.0	2,925.5	3,020.0	3,020.0	12.5	58.4	88.78	1,738.2	4,606.0	4,876.9	4,806.0	70.91	68.779	
3,100.0	3,021.7	3,116.2	3,116.2	13.1	60.3	89.09	1,738.2	4,606.0	4,876.4	4,803.0	73.39	66.441	
3,200.0	3,117.9	3,212.4	3,212.4	13.6	62.2	89.40	1,738.2	4,606.0	4,876.0	4,800.1	75.88	64.257	
3,300.0	3,214.1	3,308.6	3,308.6	14.2	64.2	89.70	1,738.2	4,606.0	4,875.8	4,797.4	78.37	62.215	
3,395.9	3,306.5	3,401.0	3,401.0	14.7	66.0	90.00	1,738.2	4,606.0	4,875.7	4,795.0	80.76	60.375	
3,400.0	3,310.4	3,404.9	3,404.9	14.7	66.1	90.01	1,738.2	4,606.0	4,875.7	4,794.9	80.86	60.300	
3,500.0	3,406.6	3,501.1	3,501.1	15.3	68.1	90.32	1,738.2	4,606.0	4,875.8	4,792.5	83.35	58.501	
3,600.0	3,502.8	3,597.3	3,597.3	15.8	70.0	90.63	1,738.2	4,606.0	4,876.0	4,790.2	85.83	56.809	
3,700.0	3,599.0	3,693.5	3,693.5	16.4	71.9	90.94	1,738.2	4,606.0	4,876.4	4,788.1	88.32	55.214	
3,800.0	3,695.3	3,789.8	3,789.8	17.0	73.9	91.24	1,738.2	4,606.0	4,877.0	4,786.2	90.81	53.708	
3,900.0	3,791.5	3,886.0	3,886.0	17.5	75.8	91.55	1,738.2	4,606.0	4,877.6	4,784.4	93.29	52.284	
4,000.0	3,887.7	3,982.2	3,982.2	18.1	77.7	91.86	1,738.2	4,606.0	4,878.5	4,782.7	95.78	50.936	
4,100.0	3,983.9	4,078.4	4,078.4	18.6	79.7	92.17	1,738.2	4,606.0	4,879.5	4,781.2	98.26	49.658	
4,200.0	4,080.2	4,174.7	4,174.7	19.2	81.6	92.47	1,738.2	4,606.0	4,880.6	4,779.9	100.75	48.445	
4,300.0	4,176.4	4,270.9	4,270.9	19.7	83.5	92.78	1,738.2	4,606.0	4,881.9	4,778.7	103.23	47.292	
4,400.0	4,272.6	4,367.1	4,367.1	20.3	85.5	93.09	1,738.2	4,606.0	4,883.4	4,777.7	105.71	46.195	
4,500.0	4,368.8	4,463.3	4,463.3	20.8	87.4	93.39	1,738.2	4,606.0	4,885.0	4,776.8	108.19	45.150	
4,600.0	4,465.1	4,559.6	4,559.6	21.4	89.3	93.70	1,738.2	4,606.0	4,886.7	4,776.0	110.68	44.153	
4,700.0	4,561.3	4,655.8	4,655.8	21.9	91.3	94.01	1,738.2	4,606.0	4,888.6	4,775.5	113.16	43.202	
4,800.0	4,657.5	4,752.0	4,752.0	22.5	93.2	94.31	1,738.2	4,606.0	4,890.7	4,775.0	115.64	42.294	
4,900.0	4,753.7	4,848.2	4,848.2	23.1	95.1	94.62	1,738.2	4,606.0	4,892.9	4,774.8	118.11	41.425	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,850.0	4,944.5	4,944.5	23.6	97.1	94.92	1,738.2	4,606.0	4,895.2	4,774.6	120.59	40.593	
5,100.0	4,946.2	5,040.7	5,040.7	24.2	99.0	95.23	1,738.2	4,606.0	4,897.7	4,774.7	123.07	39.797	
5,200.0	5,042.4	5,136.9	5,136.9	24.7	101.0	95.53	1,738.2	4,606.0	4,900.4	4,774.8	125.54	39.034	
5,300.0	5,138.6	5,233.1	5,233.1	25.3	102.9	95.84	1,738.2	4,606.0	4,903.2	4,775.2	128.02	38.301	
5,400.0	5,234.9	5,329.4	5,329.4	25.8	104.8	96.14	1,738.2	4,606.0	4,906.1	4,775.6	130.49	37.598	
5,426.2	5,260.1	5,354.6	5,354.6	26.0	105.3	96.22	1,738.2	4,606.0	4,906.9	4,775.8	131.14	37.418	
5,500.0	5,331.3	5,425.8	5,425.8	26.3	106.8	96.48	1,738.2	4,606.0	4,909.1	4,776.2	132.92	36.934	
5,600.0	5,428.7	5,523.2	5,523.2	26.7	108.7	96.80	1,738.2	4,606.0	4,911.9	4,776.6	135.25	36.318	
5,700.0	5,526.7	5,621.2	5,621.2	27.0	110.7	97.07	1,738.2	4,606.0	4,914.3	4,776.7	137.55	35.726	
5,800.0	5,625.4	5,719.9	5,719.9	27.3	112.7	97.29	1,738.2	4,606.0	4,916.3	4,776.5	139.83	35.159	
5,900.0	5,724.6	5,819.1	5,819.1	27.6	114.7	97.47	1,738.2	4,606.0	4,918.0	4,775.9	142.08	34.615	
6,000.0	5,824.1	5,918.6	5,918.6	27.8	116.7	97.60	1,738.2	4,606.0	4,919.2	4,774.9	144.28	34.094	
6,100.0	5,924.0	6,018.5	6,018.5	28.0	118.7	97.68	1,738.2	4,606.0	4,920.0	4,773.5	146.45	33.594	
6,200.0	6,023.9	6,118.4	6,118.4	28.1	120.7	97.72	1,738.2	4,606.0	4,920.3	4,771.7	148.58	33.115	
6,215.9	6,039.8	6,134.3	6,134.3	28.1	121.0	85.00	1,738.2	4,606.0	4,920.3	4,782.9	137.34	35.825	
6,245.9	6,069.8	6,164.3	6,164.3	28.1	121.6	85.00	1,738.2	4,606.0	4,920.3	4,782.3	137.99	35.657	
6,250.0	6,073.9	6,168.4	6,168.4	28.1	121.7	-5.00	1,738.2	4,606.0	4,920.3	4,770.6	149.63	32.883	
6,300.0	6,123.9	6,218.4	6,218.4	28.2	122.7	-5.02	1,738.2	4,606.0	4,918.2	4,768.0	150.25	32.734	
6,350.0	6,173.6	6,268.1	6,268.1	28.2	123.7	-5.06	1,738.2	4,606.0	4,912.8	4,762.6	150.13	32.723	
6,400.0	6,222.7	6,317.2	6,317.2	28.2	124.7	-5.14	1,738.2	4,606.0	4,903.8	4,754.6	149.27	32.852	
6,450.0	6,271.2	6,365.7	6,365.7	28.2	125.7	-5.24	1,738.2	4,606.0	4,891.5	4,743.8	147.66	33.127	
6,500.0	6,318.6	6,413.1	6,413.1	28.2	126.6	-5.38	1,738.2	4,606.0	4,875.8	4,730.5	145.29	33.558	
6,550.0	6,364.9	6,459.4	6,459.4	28.2	127.5	-5.56	1,738.2	4,606.0	4,856.9	4,714.7	142.18	34.160	
6,600.0	6,409.7	6,504.2	6,504.2	28.2	128.5	-5.78	1,738.2	4,606.0	4,834.8	4,696.5	138.34	34.950	
6,650.0	6,452.8	6,547.3	6,547.3	28.2	129.3	-6.05	1,738.2	4,606.0	4,809.7	4,675.9	133.77	35.954	
6,700.0	6,494.1	6,588.6	6,588.6	28.2	130.1	-6.38	1,738.2	4,606.0	4,781.6	4,653.1	128.53	37.203	
6,750.0	6,533.3	6,627.8	6,627.8	28.2	130.9	-6.78	1,738.2	4,606.0	4,750.7	4,628.1	122.64	38.738	
6,800.0	6,570.3	6,664.8	6,664.8	28.2	131.7	-7.27	1,738.2	4,606.0	4,717.2	4,601.1	116.16	40.608	
6,850.0	6,604.8	6,699.3	6,699.3	28.2	132.4	-7.88	1,738.2	4,606.0	4,681.2	4,572.0	109.19	42.874	
6,900.0	6,636.7	6,731.2	6,731.2	28.2	133.0	-8.63	1,738.2	4,606.0	4,642.9	4,541.1	101.82	45.600	
6,950.0	6,665.8	6,760.3	6,760.3	28.2	133.6	-9.58	1,738.2	4,606.0	4,602.5	4,508.2	94.24	48.837	
7,000.0	6,692.1	6,786.6	6,786.6	28.2	134.1	-10.81	1,738.2	4,606.0	4,560.1	4,473.4	86.73	52.575	
7,050.0	6,715.3	6,809.8	6,809.8	28.2	134.6	-12.42	1,738.2	4,606.0	4,516.0	4,436.2	79.79	56.601	
7,100.0	6,735.4	6,829.9	6,829.9	28.2	135.0	-14.63	1,738.2	4,606.0	4,470.4	4,396.2	74.28	60.186	
7,150.0	6,752.2	6,846.7	6,846.7	28.3	135.3	-17.80	1,738.2	4,606.0	4,423.6	4,351.8	71.82	61.597	
7,200.0	6,765.7	6,860.2	6,860.2	28.3	135.6	-22.63	1,738.2	4,606.0	4,375.7	4,300.5	75.18	58.203	
7,250.0	6,775.8	6,870.3	6,870.3	28.4	135.8	-30.67	1,738.2	4,606.0	4,327.0	4,238.4	88.61	48.833	
7,300.0	6,782.5	6,877.0	6,877.0	28.6	135.9	-45.57	1,738.2	4,606.0	4,277.7	4,160.5	117.22	36.493	
7,350.0	6,785.7	6,880.2	6,880.2	28.8	136.0	-74.05	1,738.2	4,606.0	4,228.0	4,073.9	154.10	27.438	
7,375.3	6,786.0	6,880.5	6,880.5	29.0	136.0	-93.41	1,738.2	4,606.0	4,202.9	4,044.0	158.88	26.454	
7,400.0	6,785.8	6,880.3	6,880.3	29.1	136.0	-93.39	1,738.2	4,606.0	4,178.3	4,019.0	159.33	26.225	
7,500.0	6,785.2	6,879.7	6,879.7	30.0	136.0	-93.31	1,738.2	4,606.0	4,078.9	3,917.6	161.26	25.294	
7,600.0	6,784.6	6,879.1	6,879.1	31.2	136.0	-93.22	1,738.2	4,606.0	3,979.4	3,816.1	163.34	24.362	
7,700.0	6,784.0	6,878.5	6,878.5	32.8	136.0	-93.14	1,738.2	4,606.0	3,880.0	3,714.5	165.54	23.438	
7,800.0	6,783.4	6,877.9	6,877.9	34.7	136.0	-93.06	1,738.2	4,606.0	3,780.7	3,612.8	167.84	22.526	
7,900.0	6,782.8	6,877.3	6,877.3	36.8	136.0	-92.98	1,738.2	4,606.0	3,681.3	3,511.1	170.21	21.628	
8,000.0	6,782.2	6,876.7	6,876.7	39.1	135.9	-92.90	1,738.2	4,606.0	3,582.0	3,409.4	172.64	20.749	
8,100.0	6,781.6	6,876.1	6,876.1	41.4	135.9	-92.81	1,738.2	4,606.0	3,482.8	3,307.6	175.12	19.888	
8,200.0	6,780.9	6,875.4	6,875.4	43.8	135.9	-92.73	1,738.2	4,606.0	3,383.5	3,205.9	177.65	19.047	
8,300.0	6,780.3	6,874.8	6,874.8	46.2	135.9	-92.65	1,738.2	4,606.0	3,284.4	3,104.2	180.20	18.226	
8,400.0	6,779.7	6,874.2	6,874.2	48.7	135.9	-92.57	1,738.2	4,606.0	3,185.3	3,002.5	182.79	17.426	
8,500.0	6,779.1	6,873.6	6,873.6	51.2	135.9	-92.49	1,738.2	4,606.0	3,086.2	2,900.8	185.40	16.646	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,600.0	6,778.5	6,873.0	6,873.0	53.8	135.9	-92.41	1,738.2	4,606.0	2,987.2	2,799.2	188.03	15.887	
8,700.0	6,777.9	6,872.4	6,872.4	56.4	135.9	-92.32	1,738.2	4,606.0	2,888.3	2,697.6	190.68	15.147	
8,800.0	6,777.3	6,871.8	6,871.8	59.0	135.8	-92.24	1,738.2	4,606.0	2,789.4	2,596.1	193.35	14.427	
8,900.0	6,776.7	6,871.2	6,871.2	61.6	135.8	-92.16	1,738.2	4,606.0	2,690.7	2,494.7	196.02	13.726	
9,000.0	6,776.1	6,870.6	6,870.6	64.2	135.8	-92.08	1,738.2	4,606.0	2,592.0	2,393.3	198.71	13.044	
9,100.0	6,775.5	6,870.0	6,870.0	66.9	135.8	-92.00	1,738.2	4,606.0	2,493.4	2,292.0	201.41	12.380	
9,200.0	6,774.9	6,869.4	6,869.4	69.6	135.8	-91.92	1,738.2	4,606.0	2,395.0	2,190.9	204.12	11.733	
9,300.0	6,774.2	6,868.7	6,868.7	72.2	135.8	-91.84	1,738.2	4,606.0	2,296.7	2,089.9	206.83	11.104	
9,400.0	6,773.6	6,868.1	6,868.1	74.9	135.8	-91.75	1,738.2	4,606.0	2,198.5	1,989.0	209.55	10.491	
9,500.0	6,773.0	6,867.5	6,867.5	77.6	135.8	-91.67	1,738.2	4,606.0	2,100.5	1,888.3	212.28	9.895	
9,600.0	6,772.4	6,866.9	6,866.9	80.3	135.7	-91.59	1,738.2	4,606.0	2,002.8	1,787.7	215.01	9.315	
9,700.0	6,771.8	6,866.3	6,866.3	83.0	135.7	-91.51	1,738.2	4,606.0	1,905.2	1,687.4	217.75	8.749	
9,800.0	6,771.2	6,865.7	6,865.7	85.7	135.7	-91.43	1,738.2	4,606.0	1,807.9	1,587.4	220.49	8.199	
9,900.0	6,770.6	6,865.1	6,865.1	88.5	135.7	-91.35	1,738.2	4,606.0	1,710.9	1,487.7	223.24	7.664	
10,000.0	6,770.0	6,864.5	6,864.5	91.2	135.7	-91.26	1,738.2	4,606.0	1,614.3	1,388.3	225.99	7.143	
10,100.0	6,769.4	6,863.9	6,863.9	93.9	135.7	-91.18	1,738.2	4,606.0	1,518.1	1,289.4	228.74	6.637	
10,200.0	6,768.8	6,863.3	6,863.3	96.7	135.7	-91.10	1,738.2	4,606.0	1,422.5	1,191.0	231.50	6.145	
10,300.0	6,768.2	6,862.7	6,862.7	99.4	135.7	-91.02	1,738.2	4,606.0	1,327.5	1,093.2	234.26	5.667	
10,400.0	6,767.5	6,862.0	6,862.0	102.2	135.6	-90.94	1,738.2	4,606.0	1,233.3	996.3	237.02	5.203	
10,500.0	6,766.9	6,861.4	6,861.4	104.9	135.6	-90.86	1,738.2	4,606.0	1,140.1	900.3	239.78	4.755	
10,600.0	6,766.3	6,860.8	6,860.8	107.7	135.6	-90.78	1,738.2	4,606.0	1,048.1	805.6	242.55	4.321	
10,700.0	6,765.7	6,860.2	6,860.2	110.4	135.6	-90.70	1,738.2	4,606.0	957.7	712.4	245.31	3.904	
10,800.0	6,765.1	6,859.6	6,859.6	113.2	135.6	-90.61	1,738.2	4,606.0	869.5	621.4	248.08	3.505	
10,900.0	6,764.5	6,859.0	6,859.0	115.9	135.6	-90.53	1,738.2	4,606.0	784.1	533.2	250.85	3.126	
11,000.0	6,763.9	6,858.4	6,858.4	118.7	135.6	-90.45	1,738.2	4,606.0	702.5	448.9	253.62	2.770	
11,100.0	6,763.3	6,857.8	6,857.8	121.5	135.6	-90.37	1,738.2	4,606.0	626.3	369.9	256.39	2.443	
11,200.0	6,762.7	6,857.2	6,857.2	124.2	135.5	-90.29	1,738.2	4,606.0	557.7	298.5	259.16	2.152	
11,300.0	6,762.1	6,856.6	6,856.6	127.0	135.5	-90.21	1,738.2	4,606.0	499.7	237.8	261.94	1.908	
11,400.0	6,761.5	6,856.0	6,856.0	129.8	135.5	-90.13	1,738.2	4,606.0	456.6	191.9	264.71	1.725	
11,500.0	6,760.9	6,855.4	6,855.4	132.5	135.5	-90.05	1,738.2	4,606.0	432.7	165.2	267.49	1.618	
11,556.3	6,760.5	6,855.0	6,855.0	134.1	135.5	-90.00	1,738.2	4,606.0	429.0	159.9	269.05	1.594 CC, ES, SF	
11,600.0	6,760.3	6,854.8	6,854.8	135.3	135.5	-89.96	1,738.2	4,606.0	431.2	160.9	270.26	1.596	
11,700.0	6,759.6	6,854.1	6,854.1	138.1	135.5	-89.88	1,738.2	4,606.0	452.4	179.4	273.04	1.657	
11,800.0	6,759.0	6,853.5	6,853.5	140.8	135.5	-89.80	1,738.2	4,606.0	493.4	217.6	275.81	1.789	
11,900.0	6,758.4	6,852.9	6,852.9	143.6	135.5	-89.72	1,738.2	4,606.0	549.7	271.1	278.59	1.973	
11,971.6	6,758.0	6,852.5	6,852.5	145.6	135.5	-89.66	1,738.2	4,606.0	597.1	316.5	280.58	2.128	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	119.5	119.5	0.0	0.2	57.15	2,871.2	4,447.0	5,293.3				
100.0	100.0	219.5	219.5	0.1	1.4	57.15	2,871.2	4,447.0	5,293.3	5,291.9	1.45	3,650.562	
200.0	200.0	319.5	319.5	0.3	3.7	57.15	2,871.2	4,447.0	5,293.3	5,289.4	3.98	1,328.999	
300.0	300.0	419.5	419.5	0.5	5.7	57.15	2,871.2	4,447.0	5,293.3	5,287.1	6.28	842.629	
400.0	400.0	519.5	519.5	0.8	7.8	57.15	2,871.2	4,447.0	5,293.3	5,284.8	8.55	619.345	
500.0	500.0	619.5	619.5	1.0	9.8	57.15	2,871.2	4,447.0	5,293.3	5,282.5	10.80	490.161	
600.0	600.0	719.5	719.5	1.2	11.8	69.90	2,871.2	4,447.0	5,292.7	5,279.7	13.04	405.759	
700.0	699.8	819.3	819.3	1.5	13.8	69.99	2,871.2	4,447.0	5,290.9	5,275.7	15.28	346.182	
800.0	799.5	919.0	919.0	1.7	15.8	70.13	2,871.2	4,447.0	5,288.0	5,270.4	17.52	301.744	
900.0	898.7	1,018.2	1,018.2	1.9	17.8	70.33	2,871.2	4,447.0	5,283.8	5,264.0	19.77	267.199	
1,000.0	997.5	1,117.0	1,117.0	2.2	19.8	70.59	2,871.2	4,447.0	5,278.5	5,256.5	22.04	239.475	
1,100.0	1,095.6	1,215.1	1,215.1	2.6	21.8	70.90	2,871.2	4,447.0	5,272.1	5,247.8	24.33	216.662	
1,200.0	1,193.1	1,312.6	1,312.6	3.0	23.8	71.27	2,871.2	4,447.0	5,264.7	5,238.0	26.65	197.514	
1,289.7	1,279.7	1,399.2	1,399.2	3.4	25.5	71.65	2,871.2	4,447.0	5,257.1	5,228.3	28.77	182.760	
1,300.0	1,289.6	1,409.1	1,409.1	3.4	25.7	71.68	2,871.2	4,447.0	5,256.2	5,227.2	29.01	181.171	
1,400.0	1,385.9	1,505.4	1,505.4	3.9	27.7	71.95	2,871.2	4,447.0	5,247.4	5,216.0	31.42	167.024	
1,500.0	1,482.1	1,601.6	1,601.6	4.4	29.6	72.22	2,871.2	4,447.0	5,238.7	5,204.9	33.84	154.814	
1,600.0	1,578.3	1,697.8	1,697.8	4.9	31.5	72.50	2,871.2	4,447.0	5,230.2	5,193.9	36.27	144.191	
1,700.0	1,674.5	1,794.0	1,794.0	5.5	33.5	72.77	2,871.2	4,447.0	5,221.8	5,183.1	38.72	134.875	
1,800.0	1,770.8	1,890.3	1,890.3	6.0	35.4	73.05	2,871.2	4,447.0	5,213.5	5,172.3	41.17	126.646	
1,900.0	1,867.0	1,986.5	1,986.5	6.5	37.3	73.32	2,871.2	4,447.0	5,205.3	5,161.7	43.62	119.329	
2,000.0	1,963.2	2,082.7	2,082.7	7.1	39.3	73.60	2,871.2	4,447.0	5,197.3	5,151.2	46.08	112.783	
2,100.0	2,059.4	2,178.9	2,178.9	7.6	41.2	73.88	2,871.2	4,447.0	5,189.4	5,140.9	48.55	106.895	
2,200.0	2,155.7	2,275.2	2,275.2	8.1	43.1	74.16	2,871.2	4,447.0	5,181.6	5,130.6	51.02	101.571	
2,300.0	2,251.9	2,371.4	2,371.4	8.7	45.1	74.44	2,871.2	4,447.0	5,174.0	5,120.5	53.49	96.736	
2,400.0	2,348.1	2,467.6	2,467.6	9.2	47.0	74.72	2,871.2	4,447.0	5,166.5	5,110.6	55.96	92.326	
2,500.0	2,444.3	2,563.8	2,563.8	9.8	49.0	75.00	2,871.2	4,447.0	5,159.1	5,100.7	58.44	88.288	
2,600.0	2,540.6	2,660.1	2,660.1	10.3	50.9	75.28	2,871.2	4,447.0	5,151.9	5,091.0	60.91	84.577	
2,700.0	2,636.8	2,756.3	2,756.3	10.9	52.8	75.56	2,871.2	4,447.0	5,144.8	5,081.4	63.39	81.156	
2,800.0	2,733.0	2,852.5	2,852.5	11.4	54.8	75.85	2,871.2	4,447.0	5,137.8	5,072.0	65.88	77.993	
2,900.0	2,829.2	2,948.7	2,948.7	12.0	56.7	76.13	2,871.2	4,447.0	5,131.0	5,062.7	68.36	75.059	
3,000.0	2,925.5	3,045.0	3,045.0	12.5	58.6	76.42	2,871.2	4,447.0	5,124.3	5,053.5	70.84	72.332	
3,100.0	3,021.7	3,141.2	3,141.2	13.1	60.6	76.70	2,871.2	4,447.0	5,117.8	5,044.4	73.33	69.790	
3,200.0	3,117.9	3,237.4	3,237.4	13.6	62.5	76.99	2,871.2	4,447.0	5,111.3	5,035.5	75.82	67.415	
3,300.0	3,214.1	3,333.6	3,333.6	14.2	64.4	77.28	2,871.2	4,447.0	5,105.0	5,026.7	78.31	65.192	
3,400.0	3,310.4	3,429.9	3,429.9	14.7	66.4	77.56	2,871.2	4,447.0	5,098.9	5,018.1	80.80	63.106	
3,500.0	3,406.6	3,526.1	3,526.1	15.3	68.3	77.85	2,871.2	4,447.0	5,092.9	5,009.6	83.29	61.147	
3,600.0	3,502.8	3,622.3	3,622.3	15.8	70.2	78.14	2,871.2	4,447.0	5,087.0	5,001.2	85.78	59.301	
3,700.0	3,599.0	3,718.5	3,718.5	16.4	72.2	78.43	2,871.2	4,447.0	5,081.3	4,993.0	88.28	57.561	
3,800.0	3,695.3	3,814.8	3,814.8	17.0	74.1	78.72	2,871.2	4,447.0	5,075.7	4,984.9	90.77	55.918	
3,900.0	3,791.5	3,911.0	3,911.0	17.5	76.0	79.01	2,871.2	4,447.0	5,070.2	4,977.0	93.27	54.363	
4,000.0	3,887.7	4,007.2	4,007.2	18.1	78.0	79.30	2,871.2	4,447.0	5,064.9	4,969.2	95.76	52.891	
4,100.0	3,983.9	4,103.4	4,103.4	18.6	79.9	79.59	2,871.2	4,447.0	5,059.7	4,961.5	98.26	51.494	
4,200.0	4,080.2	4,199.7	4,199.7	19.2	81.9	79.89	2,871.2	4,447.0	5,054.7	4,954.0	100.76	50.168	
4,300.0	4,176.4	4,295.9	4,295.9	19.7	83.8	80.18	2,871.2	4,447.0	5,049.8	4,946.6	103.25	48.907	
4,400.0	4,272.6	4,392.1	4,392.1	20.3	85.7	80.47	2,871.2	4,447.0	5,045.1	4,939.3	105.75	47.706	
4,500.0	4,368.8	4,488.3	4,488.3	20.8	87.7	80.77	2,871.2	4,447.0	5,040.5	4,932.2	108.25	46.563	
4,600.0	4,465.1	4,584.6	4,584.6	21.4	89.6	81.06	2,871.2	4,447.0	5,036.0	4,925.3	110.75	45.471	
4,700.0	4,561.3	4,680.8	4,680.8	21.9	91.5	81.36	2,871.2	4,447.0	5,031.7	4,918.4	113.25	44.429	
4,800.0	4,657.5	4,777.0	4,777.0	22.5	93.5	81.65	2,871.2	4,447.0	5,027.5	4,911.8	115.75	43.434	
4,900.0	4,753.7	4,873.2	4,873.2	23.1	95.4	81.95	2,871.2	4,447.0	5,023.5	4,905.2	118.25	42.481	
5,000.0	4,850.0	4,969.5	4,969.5	23.6	97.3	82.24	2,871.2	4,447.0	5,019.6	4,898.8	120.75	41.569	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,065.7	5,065.7	24.2	99.3	82.54	2,871.2	4,447.0	5,015.9	4,892.6	123.25	40.695	
5,200.0	5,042.4	5,161.9	5,161.9	24.7	101.2	82.84	2,871.2	4,447.0	5,012.3	4,886.5	125.76	39.857	
5,300.0	5,138.6	5,258.1	5,258.1	25.3	103.1	83.13	2,871.2	4,447.0	5,008.8	4,880.5	128.26	39.053	
5,400.0	5,234.9	5,354.4	5,354.4	25.8	105.1	83.43	2,871.2	4,447.0	5,005.5	4,874.7	130.76	38.280	
5,426.2	5,260.1	5,379.6	5,379.6	26.0	105.6	83.51	2,871.2	4,447.0	5,004.7	4,873.2	131.41	38.083	
5,500.0	5,331.3	5,450.8	5,450.8	26.3	107.0	83.68	2,871.2	4,447.0	5,002.4	4,869.2	133.21	37.552	
5,600.0	5,428.7	5,548.2	5,548.2	26.7	109.0	83.88	2,871.2	4,447.0	4,999.9	4,864.3	135.57	36.881	
5,700.0	5,526.7	5,646.2	5,646.2	27.0	110.9	84.06	2,871.2	4,447.0	4,997.8	4,859.9	137.89	36.245	
5,800.0	5,625.4	5,744.9	5,744.9	27.3	112.9	84.21	2,871.2	4,447.0	4,996.1	4,855.9	140.18	35.641	
5,900.0	5,724.6	5,844.1	5,844.1	27.6	114.9	84.33	2,871.2	4,447.0	4,994.8	4,852.4	142.43	35.068	
6,000.0	5,824.1	5,943.6	5,943.6	27.8	116.9	84.41	2,871.2	4,447.0	4,993.9	4,849.2	144.65	34.524	
6,100.0	5,924.0	6,043.5	6,043.5	28.0	118.9	84.47	2,871.2	4,447.0	4,993.3	4,846.5	146.82	34.010	
6,200.0	6,023.9	6,143.4	6,143.4	28.1	120.9	84.49	2,871.2	4,447.0	4,993.1	4,844.2	148.95	33.522	
6,215.9	6,039.8	6,159.3	6,159.3	28.1	121.3	71.77	2,871.2	4,447.0	4,993.1	4,855.7	137.39	36.342	
6,245.9	6,069.8	6,189.3	6,189.3	28.1	121.9	71.77	2,871.2	4,447.0	4,993.1	4,855.1	138.04	36.170	
6,250.0	6,073.9	6,193.4	6,193.4	28.1	121.9	-18.23	2,871.2	4,447.0	4,993.1	4,843.1	150.00	33.287	
6,300.0	6,123.9	6,243.4	6,243.4	28.2	123.0	-18.29	2,871.2	4,447.0	4,991.2	4,840.5	150.68	33.125	
6,350.0	6,173.6	6,293.1	6,293.1	28.2	124.0	-18.44	2,871.2	4,447.0	4,985.9	4,835.3	150.67	33.092	
6,400.0	6,222.7	6,342.2	6,342.2	28.2	124.9	-18.69	2,871.2	4,447.0	4,977.4	4,827.4	149.98	33.187	
6,450.0	6,271.2	6,390.7	6,390.7	28.2	125.9	-19.05	2,871.2	4,447.0	4,965.7	4,817.1	148.61	33.414	
6,500.0	6,318.6	6,438.1	6,438.1	28.2	126.9	-19.52	2,871.2	4,447.0	4,950.8	4,804.2	146.59	33.774	
6,550.0	6,364.9	6,484.4	6,484.4	28.2	127.8	-20.12	2,871.2	4,447.0	4,932.7	4,788.8	143.94	34.270	
6,600.0	6,409.7	6,529.2	6,529.2	28.2	128.7	-20.86	2,871.2	4,447.0	4,911.7	4,771.0	140.72	34.905	
6,650.0	6,452.8	6,572.3	6,572.3	28.2	129.6	-21.76	2,871.2	4,447.0	4,887.8	4,750.8	137.01	35.676	
6,700.0	6,494.1	6,613.6	6,613.6	28.2	130.4	-22.84	2,871.2	4,447.0	4,861.1	4,728.2	132.91	36.574	
6,750.0	6,533.3	6,652.8	6,652.8	28.2	131.2	-24.14	2,871.2	4,447.0	4,831.7	4,703.1	128.59	37.575	
6,800.0	6,570.3	6,689.8	6,689.8	28.2	131.9	-25.69	2,871.2	4,447.0	4,799.9	4,675.6	124.25	38.630	
6,850.0	6,604.8	6,724.3	6,724.3	28.2	132.6	-27.56	2,871.2	4,447.0	4,765.7	4,645.5	120.19	39.653	
6,900.0	6,636.7	6,756.2	6,756.2	28.2	133.3	-29.79	2,871.2	4,447.0	4,729.4	4,612.6	116.77	40.501	
6,950.0	6,665.8	6,785.3	6,785.3	28.2	133.9	-32.49	2,871.2	4,447.0	4,691.1	4,576.6	114.49	40.973	
7,000.0	6,692.1	6,811.6	6,811.6	28.2	134.4	-35.76	2,871.2	4,447.0	4,651.0	4,537.1	113.90	40.832	
7,050.0	6,715.3	6,834.8	6,834.8	28.2	134.8	-39.74	2,871.2	4,447.0	4,609.3	4,493.7	115.57	39.883	
7,100.0	6,735.4	6,854.9	6,854.9	28.2	135.3	-44.59	2,871.2	4,447.0	4,566.2	4,446.3	119.90	38.083	
7,150.0	6,752.2	6,871.7	6,871.7	28.3	135.6	-50.49	2,871.2	4,447.0	4,522.0	4,395.1	126.94	35.625	
7,200.0	6,765.7	6,885.2	6,885.2	28.3	135.9	-57.59	2,871.2	4,447.0	4,476.9	4,340.8	136.08	32.898	
7,250.0	6,775.8	6,895.3	6,895.3	28.4	136.1	-65.97	2,871.2	4,447.0	4,431.0	4,285.1	145.94	30.363	
7,300.0	6,782.5	6,902.0	6,902.0	28.6	136.2	-75.47	2,871.2	4,447.0	4,384.7	4,230.4	154.35	28.407	
7,350.0	6,785.7	6,905.2	6,905.2	28.8	136.3	-85.68	2,871.2	4,447.0	4,338.1	4,179.1	159.06	27.273	
7,375.3	6,786.0	6,905.5	6,905.5	29.0	136.3	-90.90	2,871.2	4,447.0	4,314.6	4,155.0	159.57	27.039	
7,400.0	6,785.8	6,905.3	6,905.3	29.1	136.3	-90.90	2,871.2	4,447.0	4,291.5	4,131.5	160.01	26.820	
7,500.0	6,785.2	6,904.7	6,904.7	30.0	136.3	-90.87	2,871.2	4,447.0	4,198.6	4,036.6	161.93	25.928	
7,600.0	6,784.6	6,904.1	6,904.1	31.2	136.2	-90.85	2,871.2	4,447.0	4,105.9	3,941.9	164.00	25.036	
7,700.0	6,784.0	6,903.5	6,903.5	32.8	136.2	-90.83	2,871.2	4,447.0	4,013.6	3,847.4	166.18	24.152	
7,800.0	6,783.4	6,902.9	6,902.9	34.7	136.2	-90.81	2,871.2	4,447.0	3,921.7	3,753.2	168.46	23.279	
7,900.0	6,782.8	6,902.3	6,902.3	36.8	136.2	-90.78	2,871.2	4,447.0	3,830.2	3,659.3	170.82	22.422	
8,000.0	6,782.2	6,901.7	6,901.7	39.1	136.2	-90.76	2,871.2	4,447.0	3,739.1	3,565.8	173.24	21.584	
8,100.0	6,781.6	6,901.1	6,901.1	41.4	136.2	-90.74	2,871.2	4,447.0	3,648.5	3,472.8	175.70	20.765	
8,200.0	6,780.9	6,900.4	6,900.4	43.8	136.2	-90.72	2,871.2	4,447.0	3,558.4	3,380.1	178.21	19.967	
8,300.0	6,780.3	6,899.8	6,899.8	46.2	136.2	-90.69	2,871.2	4,447.0	3,468.8	3,288.0	180.76	19.190	
8,400.0	6,779.7	6,899.2	6,899.2	48.7	136.1	-90.67	2,871.2	4,447.0	3,379.8	3,196.5	183.33	18.435	
8,500.0	6,779.1	6,898.6	6,898.6	51.2	136.1	-90.65	2,871.2	4,447.0	3,291.4	3,105.5	185.93	17.703	
8,600.0	6,778.5	6,898.0	6,898.0	53.8	136.1	-90.63	2,871.2	4,447.0	3,203.8	3,015.2	188.55	16.992	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT HELEN 1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,777.9	6,897.4	6,897.4	56.4	136.1	-90.60	2,871.2	4,447.0	3,116.8	2,925.7	191.18	16.303	
8,800.0	6,777.3	6,896.8	6,896.8	59.0	136.1	-90.58	2,871.2	4,447.0	3,030.7	2,836.9	193.83	15.636	
8,900.0	6,776.7	6,896.2	6,896.2	61.6	136.1	-90.56	2,871.2	4,447.0	2,945.5	2,749.0	196.50	14.990	
9,000.0	6,776.1	6,895.6	6,895.6	64.2	136.1	-90.54	2,871.2	4,447.0	2,861.2	2,662.0	199.18	14.365	
9,100.0	6,775.5	6,895.0	6,895.0	66.9	136.1	-90.51	2,871.2	4,447.0	2,777.9	2,576.1	201.86	13.762	
9,200.0	6,774.9	6,894.4	6,894.4	69.6	136.0	-90.49	2,871.2	4,447.0	2,695.8	2,491.3	204.56	13.179	
9,300.0	6,774.2	6,893.7	6,893.7	72.2	136.0	-90.47	2,871.2	4,447.0	2,615.0	2,407.7	207.26	12.617	
9,400.0	6,773.6	6,893.1	6,893.1	74.9	136.0	-90.45	2,871.2	4,447.0	2,535.5	2,325.5	209.97	12.075	
9,500.0	6,773.0	6,892.5	6,892.5	77.6	136.0	-90.42	2,871.2	4,447.0	2,457.5	2,244.8	212.69	11.554	
9,600.0	6,772.4	6,891.9	6,891.9	80.3	136.0	-90.40	2,871.2	4,447.0	2,381.1	2,165.7	215.41	11.054	
9,700.0	6,771.8	6,891.3	6,891.3	83.0	136.0	-90.38	2,871.2	4,447.0	2,306.6	2,088.4	218.14	10.574	
9,800.0	6,771.2	6,890.7	6,890.7	85.7	136.0	-90.36	2,871.2	4,447.0	2,234.0	2,013.2	220.87	10.115	
9,900.0	6,770.6	6,890.1	6,890.1	88.5	136.0	-90.33	2,871.2	4,447.0	2,163.7	1,940.1	223.61	9.676	
10,000.0	6,770.0	6,889.5	6,889.5	91.2	135.9	-90.31	2,871.2	4,447.0	2,095.7	1,869.4	226.35	9.259	
10,100.0	6,769.4	6,888.9	6,888.9	93.9	135.9	-90.29	2,871.2	4,447.0	2,030.4	1,801.3	229.09	8.863	
10,200.0	6,768.8	6,888.3	6,888.3	96.7	135.9	-90.27	2,871.2	4,447.0	1,968.0	1,736.2	231.84	8.489	
10,300.0	6,768.2	6,887.7	6,887.7	99.4	135.9	-90.24	2,871.2	4,447.0	1,908.8	1,674.3	234.59	8.137	
10,400.0	6,767.5	6,887.0	6,887.0	102.2	135.9	-90.22	2,871.2	4,447.0	1,853.2	1,615.8	237.34	7.808	
10,500.0	6,766.9	6,886.4	6,886.4	104.9	135.9	-90.20	2,871.2	4,447.0	1,801.3	1,561.2	240.09	7.503	
10,600.0	6,766.3	6,885.8	6,885.8	107.7	135.9	-90.18	2,871.2	4,447.0	1,753.7	1,510.8	242.85	7.221	
10,700.0	6,765.7	6,885.2	6,885.2	110.4	135.9	-90.16	2,871.2	4,447.0	1,710.5	1,464.9	245.61	6.964	
10,800.0	6,765.1	6,884.6	6,884.6	113.2	135.8	-90.13	2,871.2	4,447.0	1,672.3	1,423.9	248.37	6.733	
10,900.0	6,764.5	6,884.0	6,884.0	115.9	135.8	-90.11	2,871.2	4,447.0	1,639.2	1,388.1	251.13	6.527	
11,000.0	6,763.9	6,883.4	6,883.4	118.7	135.8	-90.09	2,871.2	4,447.0	1,611.7	1,357.8	253.90	6.348	
11,100.0	6,763.3	6,882.8	6,882.8	121.5	135.8	-90.07	2,871.2	4,447.0	1,590.0	1,333.3	256.66	6.195	
11,200.0	6,762.7	6,882.2	6,882.2	124.2	135.8	-90.04	2,871.2	4,447.0	1,574.4	1,314.9	259.43	6.069	
11,300.0	6,762.1	6,881.6	6,881.6	127.0	135.8	-90.02	2,871.2	4,447.0	1,565.0	1,302.8	262.20	5.969	
11,397.3	6,761.5	6,881.0	6,881.0	129.7	135.8	-90.00	2,871.2	4,447.0	1,562.0	1,297.1	264.89	5.897 CC	
11,400.0	6,761.5	6,881.0	6,881.0	129.8	135.8	-90.00	2,871.2	4,447.0	1,562.0	1,297.0	264.97	5.895 ES	
11,500.0	6,760.9	6,880.4	6,880.4	132.5	135.8	-89.98	2,871.2	4,447.0	1,565.3	1,297.6	267.74	5.846	
11,600.0	6,760.3	6,879.8	6,879.8	135.3	135.8	-89.95	2,871.2	4,447.0	1,575.1	1,304.5	270.51	5.822	
11,700.0	6,759.6	6,879.1	6,879.1	138.1	135.7	-89.93	2,871.2	4,447.0	1,591.0	1,317.7	273.29	5.822 SF	
11,800.0	6,759.0	6,878.5	6,878.5	140.8	135.7	-89.91	2,871.2	4,447.0	1,613.0	1,337.0	276.06	5.843	
11,900.0	6,758.4	6,877.9	6,877.9	143.6	135.7	-89.89	2,871.2	4,447.0	1,640.9	1,362.0	278.84	5.885	
11,971.6	6,758.0	6,877.5	6,877.5	145.6	135.7	-89.87	2,871.2	4,447.0	1,664.2	1,383.4	280.82	5.926	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	35.5	35.5	0.0	0.2	9.04	1,821.5	289.8	1,844.5				
100.0	100.0	135.5	135.5	0.1	1.5	9.04	1,821.5	289.8	1,844.5	1,842.8	1.64	1,127.515	
200.0	200.0	235.5	235.5	0.3	3.8	9.04	1,821.5	289.8	1,844.5	1,840.3	4.16	443.223	
300.0	300.0	335.5	335.5	0.5	5.9	9.04	1,821.5	289.8	1,844.5	1,838.0	6.45	285.804	
400.0	400.0	435.5	435.5	0.8	7.9	9.04	1,821.5	289.8	1,844.5	1,835.7	8.72	211.637	
500.0	500.0	535.5	535.5	1.0	10.0	9.04	1,821.5	289.8	1,844.5	1,833.5	10.97	168.198	
600.0	600.0	635.5	635.5	1.2	12.0	21.79	1,821.5	289.8	1,842.8	1,829.6	13.21	139.551	
700.0	699.8	735.3	735.3	1.5	14.0	21.89	1,821.5	289.8	1,838.0	1,822.6	15.42	119.166	
800.0	799.5	835.0	835.0	1.7	16.0	22.05	1,821.5	289.8	1,829.9	1,812.3	17.61	103.886	
900.0	898.7	934.2	934.2	1.9	18.0	22.28	1,821.5	289.8	1,818.6	1,798.8	19.77	91.975	
1,000.0	997.5	1,033.0	1,033.0	2.2	20.0	22.58	1,821.5	289.8	1,804.1	1,782.2	21.89	82.398	
1,100.0	1,095.6	1,131.1	1,131.1	2.6	22.0	22.95	1,821.5	289.8	1,786.5	1,762.5	23.98	74.506	
1,200.0	1,193.1	1,228.6	1,228.6	3.0	23.9	23.41	1,821.5	289.8	1,765.7	1,739.7	26.02	67.866	
1,289.7	1,279.7	1,315.2	1,315.2	3.4	25.7	23.88	1,821.5	289.8	1,744.5	1,716.7	27.81	62.728	
1,300.0	1,289.6	1,325.1	1,325.1	3.4	25.9	23.92	1,821.5	289.8	1,741.9	1,713.9	28.04	62.129	
1,400.0	1,385.9	1,421.4	1,421.4	3.9	27.8	24.28	1,821.5	289.8	1,716.9	1,686.7	30.23	56.788	
1,500.0	1,482.1	1,517.6	1,517.6	4.4	29.8	24.66	1,821.5	289.8	1,692.0	1,659.5	32.44	52.154	
1,600.0	1,578.3	1,613.8	1,613.8	4.9	31.7	25.05	1,821.5	289.8	1,667.1	1,632.4	34.66	48.099	
1,700.0	1,674.5	1,710.0	1,710.0	5.5	33.6	25.45	1,821.5	289.8	1,642.3	1,605.4	36.89	44.523	
1,800.0	1,770.8	1,806.3	1,806.3	6.0	35.6	25.86	1,821.5	289.8	1,617.6	1,578.5	39.12	41.348	
1,900.0	1,867.0	1,902.5	1,902.5	6.5	37.5	26.28	1,821.5	289.8	1,593.0	1,551.6	41.37	38.510	
2,000.0	1,963.2	1,998.7	1,998.7	7.1	39.4	26.72	1,821.5	289.8	1,568.4	1,524.8	43.62	35.960	
2,100.0	2,059.4	2,094.9	2,094.9	7.6	41.4	27.17	1,821.5	289.8	1,544.0	1,498.1	45.87	33.657	
2,200.0	2,155.7	2,191.2	2,191.2	8.1	43.3	27.64	1,821.5	289.8	1,519.6	1,471.5	48.14	31.567	
2,300.0	2,251.9	2,287.4	2,287.4	8.7	45.2	28.12	1,821.5	289.8	1,495.4	1,445.0	50.41	29.662	
2,400.0	2,348.1	2,383.6	2,383.6	9.2	47.2	28.61	1,821.5	289.8	1,471.2	1,418.5	52.70	27.920	
2,500.0	2,444.3	2,479.8	2,479.8	9.8	49.1	29.12	1,821.5	289.8	1,447.2	1,392.2	54.98	26.320	
2,600.0	2,540.6	2,576.1	2,576.1	10.3	51.1	29.65	1,821.5	289.8	1,423.3	1,366.0	57.28	24.846	
2,700.0	2,636.8	2,672.3	2,672.3	10.9	53.0	30.20	1,821.5	289.8	1,399.4	1,339.9	59.59	23.485	
2,800.0	2,733.0	2,768.5	2,768.5	11.4	54.9	30.76	1,821.5	289.8	1,375.8	1,313.9	61.90	22.224	
2,900.0	2,829.2	2,864.7	2,864.7	12.0	56.9	31.34	1,821.5	289.8	1,352.2	1,288.0	64.23	21.053	
3,000.0	2,925.5	2,961.0	2,961.0	12.5	58.8	31.95	1,821.5	289.8	1,328.8	1,262.2	66.56	19.963	
3,100.0	3,021.7	3,057.2	3,057.2	13.1	60.7	32.57	1,821.5	289.8	1,305.5	1,236.6	68.91	18.946	
3,200.0	3,117.9	3,153.4	3,153.4	13.6	62.7	33.22	1,821.5	289.8	1,282.4	1,211.2	71.26	17.995	
3,300.0	3,214.1	3,249.6	3,249.6	14.2	64.6	33.89	1,821.5	289.8	1,259.5	1,185.9	73.63	17.105	
3,400.0	3,310.4	3,345.9	3,345.9	14.7	66.5	34.59	1,821.5	289.8	1,236.7	1,160.7	76.01	16.270	
3,500.0	3,406.6	3,442.1	3,442.1	15.3	68.5	35.31	1,821.5	289.8	1,214.1	1,135.7	78.40	15.486	
3,600.0	3,502.8	3,538.3	3,538.3	15.8	70.4	36.05	1,821.5	289.8	1,191.7	1,110.9	80.81	14.748	
3,700.0	3,599.0	3,634.5	3,634.5	16.4	72.3	36.83	1,821.5	289.8	1,169.6	1,086.3	83.22	14.053	
3,800.0	3,695.3	3,730.8	3,730.8	17.0	74.3	37.63	1,821.5	289.8	1,147.6	1,061.9	85.66	13.398	
3,900.0	3,791.5	3,827.0	3,827.0	17.5	76.2	38.46	1,821.5	289.8	1,125.8	1,037.7	88.10	12.779	
4,000.0	3,887.7	3,923.2	3,923.2	18.1	78.1	39.33	1,821.5	289.8	1,104.3	1,013.8	90.57	12.194	
4,100.0	3,983.9	4,019.4	4,019.4	18.6	80.1	40.23	1,821.5	289.8	1,083.1	990.1	93.05	11.641	
4,200.0	4,080.2	4,115.7	4,115.7	19.2	82.0	41.16	1,821.5	289.8	1,062.1	966.6	95.54	11.117	
4,300.0	4,176.4	4,211.9	4,211.9	19.7	84.0	42.13	1,821.5	289.8	1,041.5	943.4	98.05	10.621	
4,400.0	4,272.6	4,308.1	4,308.1	20.3	85.9	43.14	1,821.5	289.8	1,021.1	920.5	100.59	10.151	
4,500.0	4,368.8	4,404.3	4,404.3	20.8	87.8	44.18	1,821.5	289.8	1,001.0	897.9	103.14	9.706	
4,600.0	4,465.1	4,500.6	4,500.6	21.4	89.8	45.27	1,821.5	289.8	981.3	875.6	105.70	9.284	
4,700.0	4,561.3	4,596.8	4,596.8	21.9	91.7	46.40	1,821.5	289.8	962.0	853.7	108.29	8.883	
4,800.0	4,657.5	4,693.0	4,693.0	22.5	93.6	47.57	1,821.5	289.8	943.0	832.1	110.90	8.503	
4,900.0	4,753.7	4,789.2	4,789.2	23.1	95.6	48.79	1,821.5	289.8	924.5	811.0	113.53	8.143	
5,000.0	4,850.0	4,885.5	4,885.5	23.6	97.5	50.06	1,821.5	289.8	906.4	790.2	116.18	7.802	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	4,981.7	4,981.7	24.2	99.4	51.37	1,821.5	289.8	888.8	769.9	118.85	7.478	
5,200.0	5,042.4	5,077.9	5,077.9	24.7	101.4	52.73	1,821.5	289.8	871.6	750.1	121.54	7.172	
5,300.0	5,138.6	5,174.1	5,174.1	25.3	103.3	54.15	1,821.5	289.8	855.0	730.8	124.24	6.882	
5,400.0	5,234.9	5,270.4	5,270.4	25.8	105.2	55.62	1,821.5	289.8	839.0	712.0	126.97	6.608	
5,426.2	5,260.1	5,295.6	5,295.6	26.0	105.7	56.01	1,821.5	289.8	834.9	707.2	127.68	6.538	
5,500.0	5,331.3	5,366.8	5,366.8	26.3	107.2	56.91	1,821.5	289.8	824.0	694.2	129.82	6.347	
5,600.0	5,428.7	5,464.2	5,464.2	26.7	109.1	58.03	1,821.5	289.8	811.4	678.8	132.57	6.120	
5,700.0	5,526.7	5,562.2	5,562.2	27.0	111.1	59.02	1,821.5	289.8	801.0	665.8	135.23	5.923	
5,800.0	5,625.4	5,660.9	5,660.9	27.3	113.1	59.87	1,821.5	289.8	792.7	654.9	137.78	5.753	
5,900.0	5,724.6	5,760.1	5,760.1	27.6	115.1	60.56	1,821.5	289.8	786.3	646.1	140.23	5.607	
6,000.0	5,824.1	5,859.6	5,859.6	27.8	117.1	61.07	1,821.5	289.8	781.8	639.2	142.59	5.483	
6,100.0	5,924.0	5,959.5	5,959.5	28.0	119.1	61.39	1,821.5	289.8	779.0	634.1	144.85	5.378	
6,200.0	6,023.9	6,059.4	6,059.4	28.1	121.1	61.52	1,821.5	289.8	777.9	630.9	147.00	5.292	
6,215.9	6,039.8	6,075.3	6,075.3	28.1	121.4	48.80	1,821.5	289.8	777.9	637.1	140.77	5.526	
6,245.9	6,069.8	6,105.3	6,105.3	28.1	122.0	48.80	1,821.5	289.8	777.9	636.5	141.41	5.501	
6,250.0	6,073.9	6,109.4	6,109.4	28.1	122.1	-41.20	1,821.5	289.8	777.9	629.8	148.06	5.254	
6,300.0	6,123.9	6,159.4	6,159.4	28.2	123.1	-41.38	1,821.5	289.8	776.3	627.4	148.88	5.214	
6,350.0	6,173.6	6,209.1	6,209.1	28.2	124.1	-41.87	1,821.5	289.8	772.2	623.0	149.21	5.175	
6,400.0	6,222.7	6,258.2	6,258.2	28.2	125.1	-42.68	1,821.5	289.8	765.5	616.4	149.08	5.135	
6,450.0	6,271.2	6,306.7	6,306.7	28.2	126.1	-43.82	1,821.5	289.8	756.4	607.8	148.56	5.091	
6,500.0	6,318.6	6,354.1	6,354.1	28.2	127.0	-45.30	1,821.5	289.8	744.9	597.1	147.73	5.042	
6,550.0	6,364.9	6,400.4	6,400.4	28.2	128.0	-47.14	1,821.5	289.8	731.2	584.5	146.71	4.984	
6,600.0	6,409.7	6,445.2	6,445.2	28.2	128.9	-49.36	1,821.5	289.8	715.6	569.9	145.68	4.912	
6,650.0	6,452.8	6,488.3	6,488.3	28.2	129.7	-51.97	1,821.5	289.8	698.2	553.4	144.80	4.822	
6,700.0	6,494.1	6,529.6	6,529.6	28.2	130.6	-54.95	1,821.5	289.8	679.3	535.1	144.26	4.709	
6,750.0	6,533.3	6,568.8	6,568.8	28.2	131.3	-58.30	1,821.5	289.8	659.4	515.2	144.22	4.572	
6,800.0	6,570.3	6,605.8	6,605.8	28.2	132.1	-61.96	1,821.5	289.8	638.7	494.0	144.77	4.412	
6,850.0	6,604.8	6,640.3	6,640.3	28.2	132.8	-65.87	1,821.5	289.8	617.8	471.9	145.90	4.235	
6,900.0	6,636.7	6,672.2	6,672.2	28.2	133.4	-69.90	1,821.5	289.8	597.2	449.7	147.50	4.049	
6,950.0	6,665.8	6,701.3	6,701.3	28.2	134.0	-73.93	1,821.5	289.8	577.4	428.0	149.36	3.866	
7,000.0	6,692.1	6,727.6	6,727.6	28.2	134.5	-77.81	1,821.5	289.8	559.0	407.8	151.26	3.696	
7,050.0	6,715.3	6,750.8	6,750.8	28.2	135.0	-81.38	1,821.5	289.8	542.8	389.8	152.99	3.548	
7,100.0	6,735.4	6,770.9	6,770.9	28.2	135.4	-84.50	1,821.5	289.8	529.5	375.0	154.45	3.428	
7,150.0	6,752.2	6,787.7	6,787.7	28.3	135.8	-87.07	1,821.5	289.8	519.6	364.0	155.63	3.339	
7,200.0	6,765.7	6,801.2	6,801.2	28.3	136.0	-88.99	1,821.5	289.8	513.8	357.2	156.62	3.281	
7,239.2	6,773.9	6,809.4	6,809.4	28.4	136.2	-90.00	1,821.5	289.8	512.3	355.0	157.32	3.257 CC	
7,250.0	6,775.8	6,811.3	6,811.3	28.4	136.2	-90.20	1,821.5	289.8	512.5	355.0	157.50	3.254 ES, SF	
7,300.0	6,782.5	6,818.0	6,818.0	28.6	136.4	-90.66	1,821.5	289.8	515.9	357.5	158.39	3.257	
7,350.0	6,785.7	6,821.2	6,821.2	28.8	136.4	-90.36	1,821.5	289.8	524.0	364.7	159.33	3.289	
7,375.3	6,786.0	6,821.5	6,821.5	29.0	136.4	-89.91	1,821.5	289.8	529.9	370.1	159.82	3.316	
7,400.0	6,785.8	6,821.3	6,821.3	29.1	136.4	-89.89	1,821.5	289.8	536.8	376.5	160.27	3.349	
7,500.0	6,785.2	6,820.7	6,820.7	30.0	136.4	-89.82	1,821.5	289.8	574.6	412.4	162.19	3.543	
7,600.0	6,784.6	6,820.1	6,820.1	31.2	136.4	-89.75	1,821.5	289.8	626.2	461.9	164.26	3.812	
7,700.0	6,784.0	6,819.5	6,819.5	32.8	136.4	-89.69	1,821.5	289.8	688.6	522.1	166.44	4.137	
7,800.0	6,783.4	6,818.9	6,818.9	34.7	136.4	-89.62	1,821.5	289.8	759.0	590.3	168.72	4.499	
7,900.0	6,782.8	6,818.3	6,818.3	36.8	136.4	-89.55	1,821.5	289.8	835.5	664.5	171.07	4.884	
8,000.0	6,782.2	6,817.7	6,817.7	39.1	136.4	-89.48	1,821.5	289.8	916.6	743.1	173.49	5.283	
8,100.0	6,781.6	6,817.1	6,817.1	41.4	136.3	-89.41	1,821.5	289.8	1,001.1	825.1	175.96	5.689	
8,200.0	6,780.9	6,816.4	6,816.4	43.8	136.3	-89.35	1,821.5	289.8	1,088.2	909.7	178.47	6.097	
8,300.0	6,780.3	6,815.8	6,815.8	46.2	136.3	-89.28	1,821.5	289.8	1,177.3	996.3	181.01	6.504	
8,400.0	6,779.7	6,815.2	6,815.2	48.7	136.3	-89.21	1,821.5	289.8	1,268.1	1,084.5	183.58	6.908	
8,500.0	6,779.1	6,814.6	6,814.6	51.2	136.3	-89.14	1,821.5	289.8	1,360.2	1,174.0	186.18	7.306	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,600.0	6,778.5	6,814.0	6,814.0	53.8	136.3	-89.07	1,821.5	289.8	1,453.3	1,264.5	188.79	7.698	
8,700.0	6,777.9	6,813.4	6,813.4	56.4	136.3	-89.00	1,821.5	289.8	1,547.3	1,355.9	191.43	8.083	
8,800.0	6,777.3	6,812.8	6,812.8	59.0	136.3	-88.94	1,821.5	289.8	1,642.0	1,447.9	194.07	8.461	
8,900.0	6,776.7	6,812.2	6,812.2	61.6	136.2	-88.87	1,821.5	289.8	1,737.3	1,540.5	196.74	8.830	
9,000.0	6,776.1	6,811.6	6,811.6	64.2	136.2	-88.80	1,821.5	289.8	1,833.1	1,633.6	199.41	9.192	
9,100.0	6,775.5	6,811.0	6,811.0	66.9	136.2	-88.73	1,821.5	289.8	1,929.3	1,727.2	202.09	9.547	
9,200.0	6,774.9	6,810.4	6,810.4	69.6	136.2	-88.66	1,821.5	289.8	2,025.8	1,821.1	204.78	9.893	
9,300.0	6,774.2	6,809.7	6,809.7	72.2	136.2	-88.60	1,821.5	289.8	2,122.7	1,915.3	207.48	10.231	
9,400.0	6,773.6	6,809.1	6,809.1	74.9	136.2	-88.53	1,821.5	289.8	2,219.9	2,009.7	210.19	10.562	
9,500.0	6,773.0	6,808.5	6,808.5	77.6	136.2	-88.46	1,821.5	289.8	2,317.3	2,104.4	212.90	10.885	
9,600.0	6,772.4	6,807.9	6,807.9	80.3	136.2	-88.39	1,821.5	289.8	2,415.0	2,199.3	215.61	11.200	
9,700.0	6,771.8	6,807.3	6,807.3	83.0	136.1	-88.33	1,821.5	289.8	2,512.8	2,294.4	218.33	11.509	
9,800.0	6,771.2	6,806.7	6,806.7	85.7	136.1	-88.26	1,821.5	289.8	2,610.7	2,389.7	221.06	11.810	
9,900.0	6,770.6	6,806.1	6,806.1	88.5	136.1	-88.19	1,821.5	289.8	2,708.9	2,485.1	223.79	12.105	
10,000.0	6,770.0	6,805.5	6,805.5	91.2	136.1	-88.12	1,821.5	289.8	2,807.1	2,580.6	226.52	12.392	
10,100.0	6,769.4	6,804.9	6,804.9	93.9	136.1	-88.05	1,821.5	289.8	2,905.5	2,676.2	229.26	12.674	
10,200.0	6,768.8	6,804.3	6,804.3	96.7	136.1	-87.99	1,821.5	289.8	3,004.0	2,772.0	231.99	12.949	
10,300.0	6,768.2	6,803.7	6,803.7	99.4	136.1	-87.92	1,821.5	289.8	3,102.6	2,867.8	234.73	13.217	
10,400.0	6,767.5	6,803.0	6,803.0	102.2	136.1	-87.85	1,821.5	289.8	3,201.2	2,963.8	237.48	13.480	
10,500.0	6,766.9	6,802.4	6,802.4	104.9	136.0	-87.78	1,821.5	289.8	3,300.0	3,059.8	240.22	13.737	
10,600.0	6,766.3	6,801.8	6,801.8	107.7	136.0	-87.72	1,821.5	289.8	3,398.8	3,155.8	242.97	13.989	
10,700.0	6,765.7	6,801.2	6,801.2	110.4	136.0	-87.65	1,821.5	289.8	3,497.7	3,252.0	245.72	14.235	
10,800.0	6,765.1	6,800.6	6,800.6	113.2	136.0	-87.58	1,821.5	289.8	3,596.6	3,348.2	248.46	14.475	
10,900.0	6,764.5	6,800.0	6,800.0	115.9	136.0	-87.51	1,821.5	289.8	3,695.6	3,444.4	251.22	14.711	
11,000.0	6,763.9	6,799.4	6,799.4	118.7	136.0	-87.45	1,821.5	289.8	3,794.7	3,540.7	253.97	14.942	
11,100.0	6,763.3	6,798.8	6,798.8	121.5	136.0	-87.38	1,821.5	289.8	3,893.8	3,637.1	256.72	15.168	
11,200.0	6,762.7	6,798.2	6,798.2	124.2	136.0	-87.31	1,821.5	289.8	3,993.0	3,733.5	259.47	15.389	
11,300.0	6,762.1	6,797.6	6,797.6	127.0	135.9	-87.24	1,821.5	289.8	4,092.2	3,829.9	262.23	15.605	
11,400.0	6,761.5	6,797.0	6,797.0	129.8	135.9	-87.18	1,821.5	289.8	4,191.4	3,926.4	264.98	15.818	
11,500.0	6,760.9	6,796.4	6,796.4	132.5	135.9	-87.11	1,821.5	289.8	4,290.6	4,022.9	267.74	16.026	
11,600.0	6,760.3	6,795.8	6,795.8	135.3	135.9	-87.04	1,821.5	289.8	4,389.9	4,119.5	270.49	16.229	
11,700.0	6,759.6	6,795.1	6,795.1	138.1	135.9	-86.98	1,821.5	289.8	4,489.3	4,216.0	273.25	16.429	
11,800.0	6,759.0	6,794.5	6,794.5	140.8	135.9	-86.91	1,821.5	289.8	4,588.6	4,312.6	276.00	16.625	
11,900.0	6,758.4	6,793.9	6,793.9	143.6	135.9	-86.84	1,821.5	289.8	4,688.0	4,409.3	278.76	16.817	
11,971.6	6,758.0	6,793.5	6,793.5	145.6	135.9	-86.79	1,821.5	289.8	4,759.2	4,478.5	280.73	16.953	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	84.43	36.4	373.4	375.3				
100.0	100.0	92.5	92.5	0.1	1.2	84.43	36.4	373.4	375.2	373.9	1.25	298.995	
200.0	200.0	192.5	192.5	0.3	3.4	84.43	36.4	373.4	375.2	371.5	3.68	101.935	
300.0	300.0	292.5	292.5	0.5	5.5	84.43	36.4	373.4	375.2	369.2	6.00	62.554	
400.0	400.0	392.5	392.5	0.8	7.5	84.43	36.4	373.4	375.2	366.9	8.27	45.383	
500.0	500.0	492.5	492.5	1.0	9.5	84.43	36.4	373.4	375.2	364.7	10.52	35.658 CC	
600.0	600.0	592.5	592.5	1.2	11.5	97.41	36.4	373.4	375.4	362.6	12.77	29.402	
700.0	699.8	692.3	692.3	1.5	13.6	98.18	36.4	373.4	376.1	361.1	15.01	25.057	
800.0	799.5	792.0	792.0	1.7	15.6	99.46	36.4	373.4	377.5	360.2	17.26	21.874	
900.0	898.7	891.2	891.2	1.9	17.6	101.22	36.4	373.4	379.7	360.2	19.51	19.457 ES	
1,000.0	997.5	990.0	990.0	2.2	19.6	103.42	36.4	373.4	383.0	361.3	21.78	17.583	
1,100.0	1,095.6	1,088.1	1,088.1	2.6	21.5	106.02	36.4	373.4	388.0	363.9	24.07	16.118	
1,200.0	1,193.1	1,185.6	1,185.6	3.0	23.5	108.96	36.4	373.4	394.9	368.5	26.37	14.978	
1,289.7	1,279.7	1,272.2	1,272.2	3.4	25.2	111.81	36.4	373.4	403.2	374.8	28.42	14.188	
1,300.0	1,289.6	1,282.1	1,282.1	3.4	25.4	112.17	36.4	373.4	404.3	375.6	28.66	14.107	
1,400.0	1,385.9	1,378.4	1,378.4	3.9	27.4	115.54	36.4	373.4	415.6	384.7	30.96	13.423	
1,500.0	1,482.1	1,474.6	1,474.6	4.4	29.3	118.73	36.4	373.4	428.4	395.2	33.26	12.882	
1,600.0	1,578.3	1,570.8	1,570.8	4.9	31.3	121.74	36.4	373.4	442.5	407.0	35.54	12.453	
1,700.0	1,674.5	1,667.0	1,667.0	5.5	33.2	124.56	36.4	373.4	457.8	420.0	37.80	12.113	
1,800.0	1,770.8	1,763.3	1,763.3	6.0	35.1	127.21	36.4	373.4	474.2	434.2	40.04	11.844	
1,900.0	1,867.0	1,859.5	1,859.5	6.5	37.1	129.68	36.4	373.4	491.5	449.3	42.26	11.630	
2,000.0	1,963.2	1,955.7	1,955.7	7.1	39.0	131.98	36.4	373.4	509.7	465.2	44.47	11.462	
2,100.0	2,059.4	2,051.9	2,051.9	7.6	40.9	134.14	36.4	373.4	528.7	482.0	46.66	11.329	
2,200.0	2,155.7	2,148.2	2,148.2	8.1	42.9	136.14	36.4	373.4	548.3	499.5	48.85	11.226	
2,300.0	2,251.9	2,244.4	2,244.4	8.7	44.8	138.01	36.4	373.4	568.6	517.6	51.02	11.146	
2,400.0	2,348.1	2,340.6	2,340.6	9.2	46.7	139.75	36.4	373.4	589.5	536.3	53.18	11.084	
2,500.0	2,444.3	2,436.8	2,436.8	9.8	48.7	141.38	36.4	373.4	610.8	555.5	55.33	11.038	
2,600.0	2,540.6	2,533.1	2,533.1	10.3	50.6	142.90	36.4	373.4	632.6	575.1	57.48	11.005	
2,700.0	2,636.8	2,629.3	2,629.3	10.9	52.6	144.31	36.4	373.4	654.8	595.2	59.62	10.982	
2,800.0	2,733.0	2,725.5	2,725.5	11.4	54.5	145.64	36.4	373.4	677.4	615.6	61.76	10.967	
2,900.0	2,829.2	2,821.7	2,821.7	12.0	56.4	146.88	36.4	373.4	700.3	636.4	63.90	10.959	
3,000.0	2,925.5	2,918.0	2,918.0	12.5	58.4	148.05	36.4	373.4	723.5	657.4	66.03	10.956	
3,100.0	3,021.7	3,014.2	3,014.2	13.1	60.3	149.14	36.4	373.4	746.9	678.8	68.16	10.958	
3,200.0	3,117.9	3,110.4	3,110.4	13.6	62.2	150.17	36.4	373.4	770.6	700.3	70.29	10.964	
3,300.0	3,214.1	3,206.6	3,206.6	14.2	64.2	151.14	36.4	373.4	794.6	722.2	72.42	10.972	
3,400.0	3,310.4	3,302.9	3,302.9	14.7	66.1	152.05	36.4	373.4	818.7	744.2	74.54	10.983	
3,500.0	3,406.6	3,399.1	3,399.1	15.3	68.0	152.91	36.4	373.4	843.1	766.4	76.67	10.996	
3,600.0	3,502.8	3,495.3	3,495.3	15.8	70.0	153.72	36.4	373.4	867.6	788.8	78.79	11.011	
3,700.0	3,599.0	3,591.5	3,591.5	16.4	71.9	154.49	36.4	373.4	892.2	811.3	80.92	11.026	
3,800.0	3,695.3	3,687.8	3,687.8	17.0	73.8	155.22	36.4	373.4	917.0	834.0	83.04	11.043	
3,900.0	3,791.5	3,784.0	3,784.0	17.5	75.8	155.91	36.4	373.4	942.0	856.8	85.17	11.060	
4,000.0	3,887.7	3,880.2	3,880.2	18.1	77.7	156.56	36.4	373.4	967.0	879.7	87.29	11.078	
4,100.0	3,983.9	3,976.4	3,976.4	18.6	79.6	157.19	36.4	373.4	992.2	902.8	89.42	11.096	
4,200.0	4,080.2	4,072.7	4,072.7	19.2	81.6	157.78	36.4	373.4	1,017.5	925.9	91.55	11.114	
4,300.0	4,176.4	4,168.9	4,168.9	19.7	83.5	158.34	36.4	373.4	1,042.9	949.2	93.67	11.133	
4,400.0	4,272.6	4,265.1	4,265.1	20.3	85.5	158.88	36.4	373.4	1,068.3	972.5	95.80	11.151	
4,500.0	4,368.8	4,361.3	4,361.3	20.8	87.4	159.39	36.4	373.4	1,093.9	995.9	97.93	11.170	
4,600.0	4,465.1	4,457.6	4,457.6	21.4	89.3	159.88	36.4	373.4	1,119.5	1,019.4	100.06	11.189	
4,700.0	4,561.3	4,553.8	4,553.8	21.9	91.3	160.34	36.4	373.4	1,145.2	1,043.0	102.19	11.207	
4,800.0	4,657.5	4,650.0	4,650.0	22.5	93.2	160.79	36.4	373.4	1,171.0	1,066.7	104.32	11.225	
4,900.0	4,753.7	4,746.2	4,746.2	23.1	95.1	161.22	36.4	373.4	1,196.8	1,090.4	106.45	11.243	
5,000.0	4,850.0	4,842.5	4,842.5	23.6	97.1	161.62	36.4	373.4	1,222.7	1,114.1	108.58	11.261	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	4,938.7	4,938.7	24.2	99.0	162.02	36.4	373.4	1,248.7	1,138.0	110.71	11.279	
5,200.0	5,042.4	5,034.9	5,034.9	24.7	100.9	162.39	36.4	373.4	1,274.7	1,161.8	112.84	11.296	
5,300.0	5,138.6	5,131.1	5,131.1	25.3	102.9	162.75	36.4	373.4	1,300.7	1,185.7	114.98	11.313	
5,400.0	5,234.9	5,227.4	5,227.4	25.8	104.8	163.10	36.4	373.4	1,326.8	1,209.7	117.11	11.330	
5,426.2	5,260.1	5,252.6	5,252.6	26.0	105.3	163.19	36.4	373.4	1,333.7	1,216.0	117.67	11.334	
5,500.0	5,331.3	5,323.8	5,323.8	26.3	106.7	163.53	36.4	373.4	1,352.1	1,232.2	119.87	11.280	
5,600.0	5,428.7	5,421.2	5,421.2	26.7	108.7	163.93	36.4	373.4	1,374.2	1,251.5	122.75	11.195	
5,700.0	5,526.7	5,519.2	5,519.2	27.0	110.7	164.26	36.4	373.4	1,393.1	1,267.6	125.55	11.097	
5,800.0	5,625.4	5,617.9	5,617.9	27.3	112.7	164.52	36.4	373.4	1,408.8	1,280.5	128.23	10.986	
5,900.0	5,724.6	5,717.1	5,717.1	27.6	114.7	164.72	36.4	373.4	1,421.0	1,290.2	130.80	10.864	
6,000.0	5,824.1	5,816.6	5,816.6	27.8	116.7	164.87	36.4	373.4	1,430.0	1,296.7	133.24	10.732	
6,100.0	5,924.0	5,916.5	5,916.5	28.0	118.7	164.96	36.4	373.4	1,435.6	1,300.0	135.54	10.591	
6,200.0	6,023.9	6,016.4	6,016.4	28.1	120.7	164.99	36.4	373.4	1,437.8	1,300.1	137.69	10.442	
6,215.9	6,039.8	6,032.3	6,032.3	28.1	121.0	152.28	36.4	373.4	1,437.8	1,289.4	148.48	9.684	
6,245.9	6,069.8	6,062.3	6,062.3	28.1	121.6	152.28	36.4	373.4	1,437.8	1,288.7	149.11	9.643	
6,250.0	6,073.9	6,066.4	6,066.4	28.1	121.7	62.28	36.4	373.4	1,437.8	1,299.1	138.75	10.363	
6,300.0	6,123.9	6,116.4	6,116.4	28.2	122.7	62.41	36.4	373.4	1,436.9	1,297.3	139.62	10.291	
6,350.0	6,173.6	6,166.1	6,166.1	28.2	123.7	62.79	36.4	373.4	1,434.3	1,294.0	140.33	10.221	
6,400.0	6,222.7	6,215.2	6,215.2	28.2	124.7	63.40	36.4	373.4	1,430.2	1,289.3	140.89	10.152	
6,450.0	6,271.2	6,263.7	6,263.7	28.2	125.6	64.24	36.4	373.4	1,424.6	1,283.3	141.33	10.080	
6,500.0	6,318.6	6,311.1	6,311.1	28.2	126.6	65.30	36.4	373.4	1,417.6	1,275.9	141.73	10.003	
6,550.0	6,364.9	6,357.4	6,357.4	28.2	127.5	66.57	36.4	373.4	1,409.4	1,267.2	142.13	9.916	
6,600.0	6,409.7	6,402.2	6,402.2	28.2	128.4	68.04	36.4	373.4	1,400.0	1,257.4	142.59	9.818	
6,650.0	6,452.8	6,445.3	6,445.3	28.2	129.3	69.68	36.4	373.4	1,389.7	1,246.5	143.18	9.706	
6,700.0	6,494.1	6,486.6	6,486.6	28.2	130.1	71.46	36.4	373.4	1,378.6	1,234.7	143.93	9.578	
6,750.0	6,533.3	6,525.8	6,525.8	28.2	130.9	73.37	36.4	373.4	1,367.0	1,222.1	144.87	9.436	
6,800.0	6,570.3	6,562.8	6,562.8	28.2	131.7	75.35	36.4	373.4	1,355.1	1,209.1	145.97	9.283	
6,850.0	6,604.8	6,597.3	6,597.3	28.2	132.4	77.37	36.4	373.4	1,343.1	1,195.9	147.22	9.123	
6,900.0	6,636.7	6,629.2	6,629.2	28.2	133.0	79.38	36.4	373.4	1,331.3	1,182.7	148.55	8.962	
6,950.0	6,665.8	6,658.3	6,658.3	28.2	133.6	81.34	36.4	373.4	1,320.0	1,170.0	149.93	8.804	
7,000.0	6,692.1	6,684.6	6,684.6	28.2	134.1	83.19	36.4	373.4	1,309.3	1,158.0	151.29	8.655	
7,050.0	6,715.3	6,707.8	6,707.8	28.2	134.6	84.89	36.4	373.4	1,299.6	1,147.1	152.59	8.517	
7,100.0	6,735.4	6,727.9	6,727.9	28.2	135.0	86.39	36.4	373.4	1,291.2	1,137.3	153.81	8.394	
7,150.0	6,752.2	6,744.7	6,744.7	28.3	135.3	87.68	36.4	373.4	1,284.1	1,129.1	154.96	8.287	
7,200.0	6,765.7	6,758.2	6,758.2	28.3	135.6	88.70	36.4	373.4	1,278.6	1,122.6	156.03	8.195	
7,250.0	6,775.8	6,768.3	6,768.3	28.4	135.8	89.45	36.4	373.4	1,274.9	1,117.8	157.04	8.118	
7,300.0	6,782.5	6,775.0	6,775.0	28.6	135.9	89.90	36.4	373.4	1,273.0	1,115.0	158.01	8.056	
7,323.6	6,784.4	6,776.9	6,776.9	28.7	136.0	90.00	36.4	373.4	1,272.8	1,114.3	158.45	8.032	
7,350.0	6,785.7	6,778.2	6,778.2	28.8	136.0	90.03	36.4	373.4	1,273.0	1,114.1	158.93	8.010	
7,375.3	6,786.0	6,778.5	6,778.5	29.0	136.0	89.99	36.4	373.4	1,273.8	1,114.4	159.38	7.992	
7,400.0	6,785.8	6,778.3	6,778.3	29.1	136.0	89.98	36.4	373.4	1,275.1	1,115.2	159.82	7.978	
7,500.0	6,785.2	6,777.7	6,777.7	30.0	136.0	89.95	36.4	373.4	1,284.9	1,123.2	161.74	7.945 SF	
7,600.0	6,784.6	6,777.1	6,777.1	31.2	136.0	89.92	36.4	373.4	1,302.4	1,138.6	163.80	7.951	
7,700.0	6,784.0	6,776.5	6,776.5	32.8	136.0	89.90	36.4	373.4	1,327.3	1,161.3	165.98	7.997	
7,800.0	6,783.4	6,775.9	6,775.9	34.7	135.9	89.87	36.4	373.4	1,359.0	1,190.7	168.25	8.077	
7,900.0	6,782.8	6,775.3	6,775.3	36.8	135.9	89.84	36.4	373.4	1,397.2	1,226.6	170.60	8.190	
8,000.0	6,782.2	6,774.7	6,774.7	39.1	135.9	89.81	36.4	373.4	1,441.3	1,268.3	173.02	8.331	
8,100.0	6,781.6	6,774.1	6,774.1	41.4	135.9	89.79	36.4	373.4	1,490.9	1,315.4	175.48	8.496	
8,200.0	6,780.9	6,773.4	6,773.4	43.8	135.9	89.76	36.4	373.4	1,545.3	1,367.3	177.99	8.682	
8,300.0	6,780.3	6,772.8	6,772.8	46.2	135.9	89.73	36.4	373.4	1,604.1	1,423.6	180.52	8.886	
8,400.0	6,779.7	6,772.2	6,772.2	48.7	135.9	89.70	36.4	373.4	1,666.9	1,483.8	183.09	9.104	
8,500.0	6,779.1	6,771.6	6,771.6	51.2	135.9	89.68	36.4	373.4	1,733.1	1,547.5	185.69	9.334	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,778.5	6,771.0	6,771.0	53.8	135.8	89.65	36.4	373.4	1,802.5	1,614.2	188.30	9.573	
8,700.0	6,777.9	6,770.4	6,770.4	56.4	135.8	89.62	36.4	373.4	1,874.7	1,683.7	190.93	9.819	
8,800.0	6,777.3	6,769.8	6,769.8	59.0	135.8	89.59	36.4	373.4	1,949.3	1,755.7	193.58	10.070	
8,900.0	6,776.7	6,769.2	6,769.2	61.6	135.8	89.57	36.4	373.4	2,026.1	1,829.8	196.24	10.324	
9,000.0	6,776.1	6,768.6	6,768.6	64.2	135.8	89.54	36.4	373.4	2,104.8	1,905.9	198.91	10.582	
9,100.0	6,775.5	6,768.0	6,768.0	66.9	135.8	89.51	36.4	373.4	2,185.3	1,983.7	201.59	10.840	
9,200.0	6,774.9	6,767.4	6,767.4	69.6	135.8	89.49	36.4	373.4	2,267.3	2,063.0	204.28	11.099	
9,300.0	6,774.2	6,766.7	6,766.7	72.2	135.8	89.46	36.4	373.4	2,350.7	2,143.8	206.98	11.357	
9,400.0	6,773.6	6,766.1	6,766.1	74.9	135.7	89.43	36.4	373.4	2,435.4	2,225.7	209.69	11.614	
9,500.0	6,773.0	6,765.5	6,765.5	77.6	135.7	89.40	36.4	373.4	2,521.2	2,308.8	212.40	11.870	
9,600.0	6,772.4	6,764.9	6,764.9	80.3	135.7	89.38	36.4	373.4	2,608.0	2,392.9	215.12	12.124	
9,700.0	6,771.8	6,764.3	6,764.3	83.0	135.7	89.35	36.4	373.4	2,695.7	2,477.9	217.84	12.375	
9,800.0	6,771.2	6,763.7	6,763.7	85.7	135.7	89.32	36.4	373.4	2,784.3	2,563.7	220.57	12.623	
9,900.0	6,770.6	6,763.1	6,763.1	88.5	135.7	89.29	36.4	373.4	2,873.6	2,650.3	223.30	12.869	
10,000.0	6,770.0	6,762.5	6,762.5	91.2	135.7	89.27	36.4	373.4	2,963.6	2,737.5	226.04	13.111	
10,100.0	6,769.4	6,761.9	6,761.9	93.9	135.7	89.24	36.4	373.4	3,054.2	2,825.4	228.78	13.350	
10,200.0	6,768.8	6,761.3	6,761.3	96.7	135.7	89.21	36.4	373.4	3,145.4	2,913.8	231.52	13.586	
10,300.0	6,768.2	6,760.7	6,760.7	99.4	135.6	89.19	36.4	373.4	3,237.1	3,002.8	234.26	13.818	
10,400.0	6,767.5	6,760.0	6,760.0	102.2	135.6	89.16	36.4	373.4	3,329.2	3,092.2	237.01	14.047	
10,500.0	6,766.9	6,759.4	6,759.4	104.9	135.6	89.13	36.4	373.4	3,421.9	3,182.1	239.76	14.272	
10,600.0	6,766.3	6,758.8	6,758.8	107.7	135.6	89.10	36.4	373.4	3,514.9	3,272.4	242.51	14.494	
10,700.0	6,765.7	6,758.2	6,758.2	110.4	135.6	89.08	36.4	373.4	3,608.3	3,363.0	245.27	14.712	
10,800.0	6,765.1	6,757.6	6,757.6	113.2	135.6	89.05	36.4	373.4	3,702.0	3,454.0	248.02	14.926	
10,900.0	6,764.5	6,757.0	6,757.0	115.9	135.6	89.02	36.4	373.4	3,796.1	3,545.3	250.78	15.137	
11,000.0	6,763.9	6,756.4	6,756.4	118.7	135.6	88.99	36.4	373.4	3,890.4	3,636.9	253.54	15.345	
11,100.0	6,763.3	6,755.8	6,755.8	121.5	135.5	88.97	36.4	373.4	3,985.1	3,728.8	256.30	15.548	
11,200.0	6,762.7	6,755.2	6,755.2	124.2	135.5	88.94	36.4	373.4	4,079.9	3,820.9	259.06	15.749	
11,300.0	6,762.1	6,754.6	6,754.6	127.0	135.5	88.91	36.4	373.4	4,175.1	3,913.2	261.82	15.946	
11,400.0	6,761.5	6,754.0	6,754.0	129.8	135.5	88.89	36.4	373.4	4,270.4	4,005.8	264.59	16.140	
11,500.0	6,760.9	6,753.4	6,753.4	132.5	135.5	88.86	36.4	373.4	4,366.0	4,098.6	267.35	16.330	
11,600.0	6,760.3	6,752.8	6,752.8	135.3	135.5	88.83	36.4	373.4	4,461.7	4,191.6	270.12	16.518	
11,700.0	6,759.6	6,752.1	6,752.1	138.1	135.5	88.80	36.4	373.4	4,557.6	4,284.8	272.89	16.702	
11,800.0	6,759.0	6,751.5	6,751.5	140.8	135.5	88.78	36.4	373.4	4,653.7	4,378.1	275.66	16.882	
11,900.0	6,758.4	6,750.9	6,750.9	143.6	135.4	88.75	36.4	373.4	4,750.0	4,471.6	278.42	17.060	
11,971.6	6,758.0	6,750.5	6,750.5	145.6	135.4	88.73	36.4	373.4	4,819.0	4,538.6	280.41	17.186	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	78.5	78.5	0.0	0.1	14.59	3,435.5	894.4	3,550.0				
100.0	100.0	178.5	178.5	0.1	2.2	14.59	3,435.5	894.4	3,550.0	3,547.7	2.26	1,571.388	
200.0	200.0	278.5	278.5	0.3	4.3	14.59	3,435.5	894.4	3,550.0	3,545.3	4.67	760.734	
300.0	300.0	378.5	378.5	0.5	6.4	14.59	3,435.5	894.4	3,550.0	3,543.0	6.93	512.258	
400.0	400.0	478.5	478.5	0.8	8.4	14.59	3,435.5	894.4	3,550.0	3,540.8	9.18	386.736	
500.0	500.0	578.5	578.5	1.0	10.4	14.59	3,435.5	894.4	3,550.0	3,538.5	11.42	310.770	
600.0	600.0	678.5	678.5	1.2	12.4	27.34	3,435.5	894.4	3,548.4	3,534.8	13.66	259.797	
700.0	699.8	778.3	778.3	1.5	14.5	27.42	3,435.5	894.4	3,543.8	3,527.9	15.88	223.229	
800.0	799.5	878.0	878.0	1.7	16.5	27.56	3,435.5	894.4	3,536.0	3,518.0	18.07	195.713	
900.0	898.7	977.2	977.2	1.9	18.5	27.75	3,435.5	894.4	3,525.2	3,505.0	20.23	174.240	
1,000.0	997.5	1,076.0	1,076.0	2.2	20.4	28.00	3,435.5	894.4	3,511.4	3,489.0	22.37	156.998	
1,100.0	1,095.6	1,174.1	1,174.1	2.6	22.4	28.31	3,435.5	894.4	3,494.5	3,470.0	24.47	142.830	
1,200.0	1,193.1	1,271.6	1,271.6	3.0	24.4	28.68	3,435.5	894.4	3,474.6	3,448.0	26.53	130.960	
1,289.7	1,279.7	1,358.2	1,358.2	3.4	26.1	29.06	3,435.5	894.4	3,454.2	3,425.9	28.35	121.827	
1,300.0	1,289.6	1,368.1	1,368.1	3.4	26.3	29.08	3,435.5	894.4	3,451.8	3,423.2	28.58	120.768	
1,400.0	1,385.9	1,464.4	1,464.4	3.9	28.3	29.30	3,435.5	894.4	3,427.8	3,397.0	30.80	111.299	
1,500.0	1,482.1	1,560.6	1,560.6	4.4	30.2	29.53	3,435.5	894.4	3,403.9	3,370.8	33.03	103.068	
1,600.0	1,578.3	1,656.8	1,656.8	4.9	32.1	29.75	3,435.5	894.4	3,380.0	3,344.7	35.26	95.853	
1,700.0	1,674.5	1,753.0	1,753.0	5.5	34.1	29.98	3,435.5	894.4	3,356.2	3,318.7	37.51	89.483	
1,800.0	1,770.8	1,849.3	1,849.3	6.0	36.0	30.21	3,435.5	894.4	3,332.4	3,292.6	39.76	83.818	
1,900.0	1,867.0	1,945.5	1,945.5	6.5	37.9	30.45	3,435.5	894.4	3,308.7	3,266.7	42.01	78.751	
2,000.0	1,963.2	2,041.7	2,041.7	7.1	39.9	30.68	3,435.5	894.4	3,285.0	3,240.7	44.28	74.193	
2,100.0	2,059.4	2,137.9	2,137.9	7.6	41.8	30.93	3,435.5	894.4	3,261.4	3,214.9	46.54	70.072	
2,200.0	2,155.7	2,234.2	2,234.2	8.1	43.7	31.17	3,435.5	894.4	3,237.9	3,189.0	48.82	66.328	
2,300.0	2,251.9	2,330.4	2,330.4	8.7	45.7	31.42	3,435.5	894.4	3,214.4	3,163.3	51.09	62.913	
2,400.0	2,348.1	2,426.6	2,426.6	9.2	47.6	31.67	3,435.5	894.4	3,190.9	3,137.6	53.37	59.786	
2,500.0	2,444.3	2,522.8	2,522.8	9.8	49.6	31.93	3,435.5	894.4	3,167.6	3,111.9	55.66	56.911	
2,600.0	2,540.6	2,619.1	2,619.1	10.3	51.5	32.19	3,435.5	894.4	3,144.2	3,086.3	57.95	54.261	
2,700.0	2,636.8	2,715.3	2,715.3	10.9	53.4	32.45	3,435.5	894.4	3,121.0	3,060.8	60.24	51.809	
2,800.0	2,733.0	2,811.5	2,811.5	11.4	55.4	32.72	3,435.5	894.4	3,097.8	3,035.3	62.54	49.535	
2,900.0	2,829.2	2,907.7	2,907.7	12.0	57.3	32.99	3,435.5	894.4	3,074.7	3,009.9	64.84	47.421	
3,000.0	2,925.5	3,004.0	3,004.0	12.5	59.2	33.26	3,435.5	894.4	3,051.6	2,984.5	67.14	45.449	
3,100.0	3,021.7	3,100.2	3,100.2	13.1	61.2	33.54	3,435.5	894.4	3,028.7	2,959.2	69.45	43.607	
3,200.0	3,117.9	3,196.4	3,196.4	13.6	63.1	33.83	3,435.5	894.4	3,005.8	2,934.0	71.77	41.881	
3,300.0	3,214.1	3,292.6	3,292.6	14.2	65.0	34.11	3,435.5	894.4	2,982.9	2,908.8	74.09	40.263	
3,400.0	3,310.4	3,388.9	3,388.9	14.7	67.0	34.41	3,435.5	894.4	2,960.2	2,883.7	76.41	38.741	
3,500.0	3,406.6	3,485.1	3,485.1	15.3	68.9	34.70	3,435.5	894.4	2,937.5	2,858.7	78.74	37.308	
3,600.0	3,502.8	3,581.3	3,581.3	15.8	70.8	35.00	3,435.5	894.4	2,914.9	2,833.8	81.07	35.956	
3,700.0	3,599.0	3,677.5	3,677.5	16.4	72.8	35.31	3,435.5	894.4	2,892.3	2,808.9	83.40	34.679	
3,800.0	3,695.3	3,773.8	3,773.8	17.0	74.7	35.62	3,435.5	894.4	2,869.9	2,784.1	85.74	33.470	
3,900.0	3,791.5	3,870.0	3,870.0	17.5	76.6	35.93	3,435.5	894.4	2,847.5	2,759.4	88.09	32.326	
4,000.0	3,887.7	3,966.2	3,966.2	18.1	78.6	36.25	3,435.5	894.4	2,825.2	2,734.8	90.44	31.239	
4,100.0	3,983.9	4,062.4	4,062.4	18.6	80.5	36.58	3,435.5	894.4	2,803.0	2,710.2	92.79	30.207	
4,200.0	4,080.2	4,158.7	4,158.7	19.2	82.5	36.91	3,435.5	894.4	2,780.9	2,685.8	95.15	29.226	
4,300.0	4,176.4	4,254.9	4,254.9	19.7	84.4	37.24	3,435.5	894.4	2,758.9	2,661.4	97.52	28.292	
4,400.0	4,272.6	4,351.1	4,351.1	20.3	86.3	37.58	3,435.5	894.4	2,737.0	2,637.1	99.89	27.401	
4,500.0	4,368.8	4,447.3	4,447.3	20.8	88.3	37.93	3,435.5	894.4	2,715.2	2,612.9	102.26	26.551	
4,600.0	4,465.1	4,543.6	4,543.6	21.4	90.2	38.28	3,435.5	894.4	2,693.4	2,588.8	104.64	25.740	
4,700.0	4,561.3	4,639.8	4,639.8	21.9	92.1	38.63	3,435.5	894.4	2,671.8	2,564.8	107.03	24.964	
4,800.0	4,657.5	4,736.0	4,736.0	22.5	94.1	39.00	3,435.5	894.4	2,650.3	2,540.9	109.42	24.222	
4,900.0	4,753.7	4,832.2	4,832.2	23.1	96.0	39.36	3,435.5	894.4	2,628.9	2,517.1	111.81	23.511	
5,000.0	4,850.0	4,928.5	4,928.5	23.6	97.9	39.74	3,435.5	894.4	2,607.6	2,493.4	114.22	22.830	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,024.7	5,024.7	24.2	99.9	40.12	3,435.5	894.4	2,586.4	2,469.7	116.62	22.177	
5,200.0	5,042.4	5,120.9	5,120.9	24.7	101.8	40.50	3,435.5	894.4	2,565.3	2,446.2	119.04	21.550	
5,300.0	5,138.6	5,217.1	5,217.1	25.3	103.7	40.89	3,435.5	894.4	2,544.3	2,422.9	121.46	20.948	
5,400.0	5,234.9	5,313.4	5,313.4	25.8	105.7	41.29	3,435.5	894.4	2,523.5	2,399.6	123.88	20.370	
5,426.2	5,260.1	5,338.6	5,338.6	26.0	106.2	41.40	3,435.5	894.4	2,518.0	2,393.5	124.52	20.222	
5,500.0	5,331.3	5,409.8	5,409.8	26.3	107.6	41.49	3,435.5	894.4	2,503.4	2,376.8	126.62	19.771	
5,600.0	5,428.7	5,507.2	5,507.2	26.7	109.6	41.60	3,435.5	894.4	2,486.0	2,356.6	129.36	19.218	
5,700.0	5,526.7	5,605.2	5,605.2	27.0	111.5	41.70	3,435.5	894.4	2,471.2	2,339.2	132.02	18.719	
5,800.0	5,625.4	5,703.9	5,703.9	27.3	113.5	41.78	3,435.5	894.4	2,459.1	2,324.5	134.59	18.271	
5,900.0	5,724.6	5,803.1	5,803.1	27.6	115.5	41.85	3,435.5	894.4	2,449.5	2,312.5	137.06	17.871	
6,000.0	5,824.1	5,902.6	5,902.6	27.8	117.5	41.90	3,435.5	894.4	2,442.6	2,303.2	139.44	17.518	
6,100.0	5,924.0	6,002.5	6,002.5	28.0	119.5	41.94	3,435.5	894.4	2,438.3	2,296.6	141.70	17.208	
6,200.0	6,023.9	6,102.4	6,102.4	28.1	121.5	41.95	3,435.5	894.4	2,436.6	2,292.7	143.85	16.939	
6,215.9	6,039.8	6,118.3	6,118.3	28.1	121.9	29.23	3,435.5	894.4	2,436.6	2,291.3	145.25	16.775	
6,245.9	6,069.8	6,148.3	6,148.3	28.1	122.5	29.23	3,435.5	894.4	2,436.6	2,290.7	145.89	16.702	
6,250.0	6,073.9	6,152.4	6,152.4	28.1	122.5	-60.77	3,435.5	894.4	2,436.6	2,291.6	144.91	16.815	
6,300.0	6,123.9	6,202.4	6,202.4	28.2	123.5	-60.88	3,435.5	894.4	2,435.6	2,289.7	145.88	16.695	
6,350.0	6,173.6	6,252.1	6,252.1	28.2	124.5	-61.18	3,435.5	894.4	2,432.9	2,286.3	146.60	16.595	
6,400.0	6,222.7	6,301.2	6,301.2	28.2	125.5	-61.67	3,435.5	894.4	2,428.5	2,281.5	147.08	16.512	
6,450.0	6,271.2	6,349.7	6,349.7	28.2	126.5	-62.35	3,435.5	894.4	2,422.6	2,275.2	147.35	16.441	
6,500.0	6,318.6	6,397.1	6,397.1	28.2	127.5	-63.20	3,435.5	894.4	2,415.1	2,267.6	147.47	16.377	
6,550.0	6,364.9	6,443.4	6,443.4	28.2	128.4	-64.24	3,435.5	894.4	2,406.1	2,258.6	147.49	16.314	
6,600.0	6,409.7	6,488.2	6,488.2	28.2	129.3	-65.44	3,435.5	894.4	2,395.8	2,248.4	147.48	16.245	
6,650.0	6,452.8	6,531.3	6,531.3	28.2	130.2	-66.79	3,435.5	894.4	2,384.3	2,236.8	147.51	16.164	
6,700.0	6,494.1	6,572.6	6,572.6	28.2	131.0	-68.29	3,435.5	894.4	2,371.7	2,224.1	147.63	16.065	
6,750.0	6,533.3	6,611.8	6,611.8	28.2	131.8	-69.92	3,435.5	894.4	2,358.1	2,210.2	147.91	15.943	
6,800.0	6,570.3	6,648.8	6,648.8	28.2	132.5	-71.65	3,435.5	894.4	2,343.8	2,195.4	148.38	15.796	
6,850.0	6,604.8	6,683.3	6,683.3	28.2	133.2	-73.46	3,435.5	894.4	2,328.8	2,179.7	149.04	15.625	
6,900.0	6,636.7	6,715.2	6,715.2	28.2	133.9	-75.32	3,435.5	894.4	2,313.3	2,163.4	149.91	15.432	
6,950.0	6,665.8	6,744.3	6,744.3	28.2	134.4	-77.21	3,435.5	894.4	2,297.7	2,146.7	150.93	15.223	
7,000.0	6,692.1	6,770.6	6,770.6	28.2	135.0	-79.09	3,435.5	894.4	2,281.9	2,129.8	152.08	15.004	
7,050.0	6,715.3	6,793.8	6,793.8	28.2	135.4	-80.93	3,435.5	894.4	2,266.2	2,112.9	153.30	14.782	
7,100.0	6,735.4	6,813.9	6,813.9	28.2	135.8	-82.69	3,435.5	894.4	2,250.7	2,096.2	154.54	14.564	
7,150.0	6,752.2	6,830.7	6,830.7	28.3	136.2	-84.37	3,435.5	894.4	2,235.7	2,080.0	155.75	14.355	
7,200.0	6,765.7	6,844.2	6,844.2	28.3	136.5	-85.91	3,435.5	894.4	2,221.3	2,064.5	156.89	14.158	
7,250.0	6,775.8	6,854.3	6,854.3	28.4	136.7	-87.31	3,435.5	894.4	2,207.7	2,049.7	157.95	13.977	
7,300.0	6,782.5	6,861.0	6,861.0	28.6	136.8	-88.55	3,435.5	894.4	2,194.9	2,035.9	158.93	13.810	
7,350.0	6,785.7	6,864.2	6,864.2	28.8	136.9	-89.61	3,435.5	894.4	2,183.0	2,023.2	159.82	13.659	
7,375.3	6,786.0	6,864.5	6,864.5	29.0	136.9	-90.08	3,435.5	894.4	2,177.4	2,017.2	160.24	13.588	
7,400.0	6,785.8	6,864.3	6,864.3	29.1	136.9	-90.07	3,435.5	894.4	2,172.2	2,011.5	160.69	13.518	
7,500.0	6,785.2	6,863.7	6,863.7	30.0	136.8	-90.06	3,435.5	894.4	2,154.0	1,991.4	162.60	13.247	
7,600.0	6,784.6	6,863.1	6,863.1	31.2	136.8	-90.04	3,435.5	894.4	2,140.3	1,975.6	164.67	12.997	
7,700.0	6,784.0	6,862.5	6,862.5	32.8	136.8	-90.02	3,435.5	894.4	2,131.2	1,964.3	166.85	12.773	
7,800.0	6,783.4	6,861.9	6,861.9	34.7	136.8	-90.01	3,435.5	894.4	2,126.7	1,957.6	169.13	12.575	
7,844.6	6,783.1	6,861.6	6,861.6	35.7	136.8	-90.00	3,435.5	894.4	2,126.3	1,956.1	170.18	12.494 CC	
7,900.0	6,782.8	6,861.3	6,861.3	36.8	136.8	-89.99	3,435.5	894.4	2,127.0	1,955.5	171.48	12.403 ES	
8,000.0	6,782.2	6,860.7	6,860.7	39.1	136.8	-89.97	3,435.5	894.4	2,131.9	1,958.0	173.90	12.260	
8,100.0	6,781.6	6,860.1	6,860.1	41.4	136.8	-89.96	3,435.5	894.4	2,141.5	1,965.2	176.37	12.143	
8,200.0	6,780.9	6,859.4	6,859.4	43.8	136.8	-89.94	3,435.5	894.4	2,155.8	1,976.9	178.87	12.052	
8,300.0	6,780.3	6,858.8	6,858.8	46.2	136.8	-89.93	3,435.5	894.4	2,174.5	1,993.1	181.42	11.986	
8,400.0	6,779.7	6,858.2	6,858.2	48.7	136.7	-89.91	3,435.5	894.4	2,197.6	2,013.6	183.99	11.944	
8,500.0	6,779.1	6,857.6	6,857.6	51.2	136.7	-89.89	3,435.5	894.4	2,225.0	2,038.4	186.58	11.925 SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28A - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,778.5	6,857.0	6,857.0	53.8	136.7	-89.88	3,435.5	894.4	2,256.5	2,067.3	189.20	11.926	
8,700.0	6,777.9	6,856.4	6,856.4	56.4	136.7	-89.86	3,435.5	894.4	2,291.9	2,100.0	191.83	11.947	
8,800.0	6,777.3	6,855.8	6,855.8	59.0	136.7	-89.84	3,435.5	894.4	2,331.0	2,136.6	194.48	11.986	
8,900.0	6,776.7	6,855.2	6,855.2	61.6	136.7	-89.83	3,435.5	894.4	2,373.8	2,176.6	197.15	12.041	
9,000.0	6,776.1	6,854.6	6,854.6	64.2	136.7	-89.81	3,435.5	894.4	2,419.9	2,220.1	199.82	12.110	
9,100.0	6,775.5	6,854.0	6,854.0	66.9	136.7	-89.79	3,435.5	894.4	2,469.2	2,266.7	202.51	12.193	
9,200.0	6,774.9	6,853.4	6,853.4	69.6	136.6	-89.78	3,435.5	894.4	2,521.5	2,316.3	205.20	12.288	
9,300.0	6,774.2	6,852.7	6,852.7	72.2	136.6	-89.76	3,435.5	894.4	2,576.6	2,368.7	207.90	12.393	
9,400.0	6,773.6	6,852.1	6,852.1	74.9	136.6	-89.74	3,435.5	894.4	2,634.4	2,423.8	210.61	12.508	
9,500.0	6,773.0	6,851.5	6,851.5	77.6	136.6	-89.73	3,435.5	894.4	2,694.7	2,481.3	213.33	12.632	
9,600.0	6,772.4	6,850.9	6,850.9	80.3	136.6	-89.71	3,435.5	894.4	2,757.2	2,541.2	216.05	12.762	
9,700.0	6,771.8	6,850.3	6,850.3	83.0	136.6	-89.70	3,435.5	894.4	2,821.9	2,603.2	218.78	12.899	
9,800.0	6,771.2	6,849.7	6,849.7	85.7	136.6	-89.68	3,435.5	894.4	2,888.7	2,667.2	221.51	13.041	
9,900.0	6,770.6	6,849.1	6,849.1	88.5	136.6	-89.66	3,435.5	894.4	2,957.3	2,733.0	224.24	13.188	
10,000.0	6,770.0	6,848.5	6,848.5	91.2	136.5	-89.65	3,435.5	894.4	3,027.6	2,800.7	226.98	13.339	
10,100.0	6,769.4	6,847.9	6,847.9	93.9	136.5	-89.63	3,435.5	894.4	3,099.6	2,869.9	229.72	13.493	
10,200.0	6,768.8	6,847.3	6,847.3	96.7	136.5	-89.61	3,435.5	894.4	3,173.1	2,940.7	232.47	13.650	
10,300.0	6,768.2	6,846.7	6,846.7	99.4	136.5	-89.60	3,435.5	894.4	3,248.0	3,012.8	235.22	13.809	
10,400.0	6,767.5	6,846.0	6,846.0	102.2	136.5	-89.58	3,435.5	894.4	3,324.3	3,086.3	237.97	13.970	
10,500.0	6,766.9	6,845.4	6,845.4	104.9	136.5	-89.56	3,435.5	894.4	3,401.7	3,161.0	240.72	14.132	
10,600.0	6,766.3	6,844.8	6,844.8	107.7	136.5	-89.55	3,435.5	894.4	3,480.4	3,236.9	243.48	14.294	
10,700.0	6,765.7	6,844.2	6,844.2	110.4	136.5	-89.53	3,435.5	894.4	3,560.1	3,313.8	246.23	14.458	
10,800.0	6,765.1	6,843.6	6,843.6	113.2	136.4	-89.52	3,435.5	894.4	3,640.8	3,391.8	248.99	14.622	
10,900.0	6,764.5	6,843.0	6,843.0	115.9	136.4	-89.50	3,435.5	894.4	3,722.4	3,470.6	251.76	14.786	
11,000.0	6,763.9	6,842.4	6,842.4	118.7	136.4	-89.48	3,435.5	894.4	3,804.9	3,550.4	254.52	14.949	
11,100.0	6,763.3	6,841.8	6,841.8	121.5	136.4	-89.47	3,435.5	894.4	3,888.2	3,630.9	257.28	15.113	
11,200.0	6,762.7	6,841.2	6,841.2	124.2	136.4	-89.45	3,435.5	894.4	3,972.3	3,712.3	260.05	15.275	
11,300.0	6,762.1	6,840.6	6,840.6	127.0	136.4	-89.43	3,435.5	894.4	4,057.1	3,794.3	262.82	15.437	
11,400.0	6,761.5	6,840.0	6,840.0	129.8	136.4	-89.42	3,435.5	894.4	4,142.6	3,877.1	265.58	15.598	
11,500.0	6,760.9	6,839.4	6,839.4	132.5	136.4	-89.40	3,435.5	894.4	4,228.8	3,960.4	268.35	15.758	
11,600.0	6,760.3	6,838.8	6,838.8	135.3	136.3	-89.39	3,435.5	894.4	4,315.5	4,044.4	271.13	15.917	
11,700.0	6,759.6	6,838.1	6,838.1	138.1	136.3	-89.37	3,435.5	894.4	4,402.8	4,128.9	273.90	16.075	
11,800.0	6,759.0	6,837.5	6,837.5	140.8	136.3	-89.35	3,435.5	894.4	4,490.6	4,213.9	276.67	16.231	
11,900.0	6,758.4	6,836.9	6,836.9	143.6	136.3	-89.34	3,435.5	894.4	4,578.9	4,299.5	279.44	16.386	
11,971.6	6,758.0	6,836.5	6,836.5	145.6	136.3	-89.33	3,435.5	894.4	4,642.5	4,361.0	281.43	16.496	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 650-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	41.3	41.3	0.0	0.0	35.16	1,289.7	908.4	1,577.5				
100.0	100.0	141.0	141.0	0.1	0.1	35.17	1,289.5	908.7	1,577.5	1,577.3	0.23	6,768.464	
200.0	200.0	240.6	240.6	0.3	0.2	35.20	1,289.1	909.3	1,577.6	1,577.0	0.55	2,848.385	
300.0	300.0	340.2	340.2	0.5	0.3	35.24	1,288.6	910.2	1,577.6	1,576.7	0.87	1,803.802	
400.0	400.0	439.8	439.8	0.8	0.4	35.29	1,287.9	911.4	1,577.7	1,576.5	1.20	1,319.856	
500.0	500.0	539.4	539.4	1.0	0.5	35.35	1,286.9	912.9	1,577.8	1,576.3	1.52	1,040.706	
600.0	600.0	638.9	638.9	1.2	0.6	48.21	1,285.8	914.7	1,576.8	1,575.0	1.84	857.899	
700.0	699.8	740.5	740.5	1.5	0.7	48.49	1,284.6	916.6	1,573.5	1,571.3	2.17	726.017	
800.0	799.5	842.1	842.0	1.7	0.8	48.89	1,283.4	918.3	1,567.7	1,565.2	2.51	625.767	
900.0	898.7	943.4	943.2	1.9	0.9	49.42	1,282.2	919.7	1,559.6	1,556.7	2.86	545.660	
1,000.0	997.5	1,043.2	1,043.0	2.2	1.0	50.09	1,281.0	920.8	1,549.1	1,545.9	3.23	479.545	
1,100.0	1,095.6	1,141.3	1,141.1	2.6	1.1	50.87	1,280.0	921.8	1,536.6	1,533.0	3.63	423.378	
1,200.0	1,193.1	1,238.7	1,238.5	3.0	1.2	51.79	1,279.1	922.6	1,522.1	1,518.0	4.07	374.278	
1,289.7	1,279.7	1,325.3	1,325.2	3.4	1.3	52.74	1,278.3	923.1	1,507.4	1,502.9	4.50	335.161	
1,300.0	1,289.6	1,335.3	1,335.1	3.4	1.3	52.82	1,278.3	923.2	1,505.6	1,501.1	4.55	330.989	
1,400.0	1,385.9	1,431.6	1,431.4	3.9	1.4	53.67	1,277.6	923.6	1,488.7	1,483.6	5.06	294.265	
1,500.0	1,482.1	1,528.5	1,528.3	4.4	1.5	54.53	1,276.9	923.9	1,472.0	1,466.4	5.59	263.319	
1,600.0	1,578.3	1,626.7	1,626.5	4.9	1.6	55.42	1,276.3	924.1	1,455.6	1,449.5	6.14	237.056	
1,700.0	1,674.5	1,724.9	1,724.7	5.5	1.7	56.33	1,275.5	924.2	1,439.4	1,432.7	6.70	214.699	
1,800.0	1,770.8	1,823.0	1,822.8	6.0	1.8	57.26	1,274.7	924.1	1,423.4	1,416.1	7.28	195.517	
1,900.0	1,867.0	1,921.1	1,920.9	6.5	1.8	58.20	1,273.8	923.9	1,407.7	1,399.8	7.87	178.932	
2,000.0	1,963.2	2,019.2	2,019.0	7.1	1.9	59.17	1,272.8	923.5	1,392.1	1,383.7	8.46	164.485	
2,100.0	2,059.4	2,117.2	2,117.1	7.6	2.0	60.15	1,271.7	923.1	1,376.9	1,367.8	9.07	151.815	
2,200.0	2,155.7	2,215.3	2,215.1	8.1	2.1	61.15	1,270.6	922.5	1,361.9	1,352.2	9.68	140.634	
2,300.0	2,251.9	2,313.2	2,313.0	8.7	2.2	62.17	1,269.3	921.8	1,347.2	1,336.9	10.31	130.713	
2,400.0	2,348.1	2,411.2	2,410.9	9.2	2.3	63.22	1,268.0	921.0	1,332.7	1,321.8	10.94	121.865	
2,500.0	2,444.3	2,508.8	2,508.6	9.8	2.4	64.28	1,266.6	920.0	1,318.6	1,307.0	11.57	113.946	
2,600.0	2,540.6	2,603.9	2,603.7	10.3	2.5	65.33	1,265.2	919.1	1,304.9	1,292.7	12.21	106.903	
2,700.0	2,636.8	2,699.0	2,698.8	10.9	2.5	66.40	1,263.9	918.1	1,291.8	1,278.9	12.85	100.555	
2,800.0	2,733.0	2,794.2	2,793.9	11.4	2.6	67.49	1,262.7	917.2	1,279.2	1,265.7	13.49	94.815	
2,900.0	2,829.2	2,889.4	2,889.1	12.0	2.7	68.60	1,261.5	916.3	1,267.1	1,253.0	14.14	89.610	
3,000.0	2,925.5	2,984.6	2,984.3	12.5	2.8	69.72	1,260.5	915.4	1,255.7	1,240.9	14.79	84.878	
3,100.0	3,021.7	3,079.9	3,079.6	13.1	2.9	70.86	1,259.4	914.5	1,244.8	1,229.3	15.45	80.566	
3,200.0	3,117.9	3,175.3	3,174.9	13.6	2.9	72.02	1,258.5	913.7	1,234.5	1,218.4	16.11	76.629	
3,300.0	3,214.1	3,270.6	3,270.3	14.2	3.0	73.20	1,257.6	912.8	1,224.8	1,208.0	16.77	73.027	
3,400.0	3,310.4	3,366.0	3,365.7	14.7	3.1	74.39	1,256.8	912.0	1,215.7	1,198.3	17.44	69.726	
3,500.0	3,406.6	3,461.5	3,461.1	15.3	3.2	75.59	1,256.1	911.2	1,207.3	1,189.2	18.10	66.698	
3,600.0	3,502.8	3,559.9	3,559.6	15.8	3.2	76.84	1,255.4	910.3	1,199.4	1,180.6	18.76	63.936	
3,700.0	3,599.0	3,660.5	3,660.2	16.4	3.3	78.13	1,254.7	909.0	1,191.8	1,172.3	19.41	61.392	
3,800.0	3,695.3	3,761.1	3,760.8	17.0	3.4	79.42	1,254.1	907.3	1,184.4	1,164.3	20.06	59.032	
3,900.0	3,791.5	3,861.8	3,861.4	17.5	3.4	80.72	1,253.4	905.1	1,177.2	1,156.5	20.71	56.834	
4,000.0	3,887.7	3,962.5	3,962.1	18.1	3.5	82.03	1,252.7	902.6	1,170.2	1,148.9	21.36	54.786	
4,100.0	3,983.9	4,063.3	4,062.8	18.6	3.5	83.35	1,252.1	899.6	1,163.5	1,141.5	22.00	52.876	
4,200.0	4,080.2	4,164.0	4,163.5	19.2	3.6	84.68	1,251.4	896.2	1,157.0	1,134.4	22.65	51.093	
4,300.0	4,176.4	4,264.8	4,264.2	19.7	3.7	86.01	1,250.8	892.3	1,150.8	1,127.5	23.28	49.427	
4,400.0	4,272.6	4,365.6	4,364.9	20.3	3.7	87.35	1,250.2	888.0	1,144.7	1,120.8	23.91	47.871	
4,500.0	4,368.8	4,466.5	4,465.7	20.8	3.8	88.70	1,249.6	883.3	1,138.9	1,114.4	24.54	46.417	
4,600.0	4,465.1	4,560.8	4,559.9	21.4	3.8	89.96	1,249.1	878.7	1,133.5	1,108.4	25.13	45.104	
4,700.0	4,561.3	4,651.9	4,650.9	21.9	3.9	91.19	1,248.7	874.6	1,129.2	1,103.5	25.71	43.921	
4,800.0	4,657.5	4,743.1	4,742.0	22.5	3.9	92.43	1,248.5	870.9	1,125.9	1,099.6	26.28	42.843	
4,900.0	4,753.7	4,834.4	4,833.3	23.1	3.9	93.67	1,248.5	867.6	1,123.6	1,096.8	26.84	41.862	
5,000.0	4,850.0	4,925.8	4,924.6	23.6	3.9	94.90	1,248.6	864.6	1,122.5	1,095.1	27.40	40.972	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 650-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,061.1	4,908.8	4,981.6	4,980.4	23.9	4.0	95.66	1,248.8	863.0	1,122.3	1,094.5	27.73	40.471	
5,100.0	4,946.2	5,017.2	5,015.9	24.2	4.0	96.14	1,248.9	862.1	1,122.3	1,094.4	27.94	40.168	
5,200.0	5,042.4	5,108.6	5,107.4	24.7	4.0	97.36	1,249.4	859.9	1,123.3	1,094.8	28.48	39.444	
5,300.0	5,138.6	5,200.2	5,198.9	25.3	4.0	98.58	1,250.1	858.1	1,125.2	1,096.2	29.00	38.795	
5,400.0	5,234.9	5,291.8	5,290.5	25.8	4.1	99.79	1,250.9	856.7	1,128.2	1,098.7	29.52	38.216	
5,426.2	5,260.1	5,315.8	5,314.5	26.0	4.1	100.11	1,251.1	856.4	1,129.2	1,099.5	29.66	38.076	
5,500.0	5,331.3	5,383.6	5,382.3	26.3	4.1	101.01	1,251.8	855.7	1,132.1	1,102.1	29.97	37.769	
5,600.0	5,428.7	5,500.0	5,498.7	26.7	4.1	102.32	1,253.3	855.1	1,136.4	1,106.1	30.30	37.504	
5,700.0	5,526.7	5,575.4	5,574.0	27.0	4.2	103.05	1,254.4	854.7	1,140.1	1,109.5	30.62	37.235	
5,800.0	5,625.4	5,677.0	5,675.7	27.3	4.2	103.84	1,255.9	854.1	1,143.3	1,112.4	30.90	37.002	
5,900.0	5,724.6	5,779.2	5,777.8	27.6	4.2	104.44	1,257.4	853.2	1,145.5	1,114.4	31.14	36.780	
6,000.0	5,824.1	5,881.7	5,880.3	27.8	4.3	104.84	1,259.1	852.1	1,146.7	1,115.3	31.36	36.562	
6,100.0	5,924.0	5,984.5	5,983.0	28.0	4.3	105.04	1,260.8	850.7	1,146.8	1,115.2	31.55	36.343	
6,200.0	6,023.9	6,087.3	6,085.8	28.1	4.4	105.05	1,262.7	849.1	1,145.7	1,114.0	31.72	36.121	
6,215.9	6,039.8	6,103.6	6,102.1	28.1	4.4	92.31	1,263.0	848.8	1,145.4	1,123.9	21.49	53.296	
6,245.9	6,069.8	6,134.4	6,133.0	28.1	4.4	92.29	1,263.5	848.3	1,144.9	1,123.3	21.55	53.137	
6,250.0	6,073.9	6,138.7	6,137.2	28.1	4.4	2.28	1,263.6	848.2	1,144.8	1,113.0	31.79	36.008	
6,300.0	6,123.9	6,190.0	6,188.5	28.2	4.4	2.25	1,264.6	847.2	1,141.8	1,110.0	31.78	35.925	
6,350.0	6,173.6	6,240.9	6,239.4	28.2	4.4	2.24	1,265.5	846.2	1,135.2	1,103.6	31.67	35.846	
6,400.0	6,222.7	6,291.2	6,289.7	28.2	4.5	2.24	1,266.5	845.1	1,125.2	1,093.7	31.46	35.768	
6,450.0	6,271.2	6,340.7	6,339.1	28.2	4.5	2.26	1,267.5	844.0	1,111.7	1,080.6	31.15	35.691	
6,500.0	6,318.6	6,389.0	6,387.5	28.2	4.5	2.30	1,268.5	842.9	1,094.9	1,064.1	30.74	35.614	
6,550.0	6,364.9	6,436.0	6,434.4	28.2	4.5	2.36	1,269.4	841.7	1,074.7	1,044.5	30.24	35.538	
6,600.0	6,409.7	6,481.3	6,479.7	28.2	4.5	2.44	1,270.4	840.5	1,051.4	1,021.7	29.65	35.464	
6,650.0	6,452.8	6,523.6	6,521.9	28.2	4.6	2.55	1,271.3	839.4	1,025.0	996.0	28.96	35.396	
6,700.0	6,494.1	6,563.0	6,561.4	28.2	4.6	2.70	1,272.1	838.4	995.7	967.5	28.18	35.333	
6,750.0	6,533.3	6,600.4	6,598.7	28.2	4.6	2.90	1,272.8	837.5	963.7	936.4	27.32	35.270	
6,800.0	6,570.3	6,635.6	6,633.9	28.2	4.6	3.16	1,273.4	836.6	929.2	902.8	26.39	35.207	
6,850.0	6,604.8	6,668.5	6,666.8	28.2	4.6	3.49	1,274.0	835.9	892.3	866.9	25.39	35.139	
6,900.0	6,636.7	6,698.8	6,697.1	28.2	4.6	3.93	1,274.5	835.2	853.1	828.8	24.33	35.062	
6,950.0	6,665.8	6,726.4	6,724.7	28.2	4.6	4.51	1,274.9	834.6	811.9	788.7	23.22	34.965	
7,000.0	6,692.1	6,751.3	6,749.5	28.2	4.6	5.29	1,275.3	834.1	768.9	746.8	22.07	34.833	
7,050.0	6,715.3	6,773.1	6,771.4	28.2	4.6	6.39	1,275.6	833.7	724.2	703.3	20.90	34.642	
7,100.0	6,735.4	6,791.9	6,790.2	28.2	4.6	7.99	1,275.8	833.3	678.1	658.3	19.74	34.351	
7,150.0	6,752.2	6,807.6	6,805.9	28.3	4.6	10.46	1,276.0	833.0	630.7	612.1	18.62	33.874	
7,200.0	6,765.7	6,820.0	6,818.2	28.3	4.6	14.60	1,276.2	832.8	582.4	564.8	17.66	32.971	
7,250.0	6,775.8	6,829.1	6,827.3	28.4	4.6	22.45	1,276.3	832.7	533.4	516.0	17.38	30.696	
7,300.0	6,782.5	6,834.8	6,833.0	28.6	4.6	40.29	1,276.4	832.5	483.8	464.0	19.85	24.378	
7,350.0	6,785.7	6,837.1	6,835.3	28.8	4.6	82.17	1,276.4	832.5	434.0	407.2	26.83	16.176	
7,375.3	6,786.0	6,836.9	6,835.1	29.0	4.6	107.20	1,276.4	832.5	408.8	380.2	28.60	14.296	
7,400.0	6,785.8	6,836.3	6,834.6	29.1	4.6	106.26	1,276.4	832.5	384.2	355.2	29.02	13.236	
7,500.0	6,785.2	6,833.9	6,832.2	30.0	4.6	102.36	1,276.4	832.6	284.7	253.8	30.85	9.228	
7,600.0	6,784.6	6,831.6	6,829.8	31.2	4.6	98.33	1,276.4	832.6	185.8	153.0	32.80	5.663	
7,700.0	6,784.0	6,829.2	6,827.4	32.8	4.6	94.19	1,276.3	832.7	89.1	54.3	34.82	2.560	
7,782.9	6,783.5	6,827.2	6,825.4	34.4	4.6	90.72	1,276.3	832.7	32.9	-3.6	36.52	0.901 Level 1, CC, ES, SF	
7,800.0	6,783.4	6,826.7	6,825.0	34.7	4.6	90.00	1,276.3	832.7	37.1	0.2	36.86	1.006 Level 2	
7,900.0	6,782.8	6,824.3	6,822.6	36.8	4.6	85.79	1,276.3	832.7	121.6	82.7	38.88	3.128	
8,000.0	6,782.2	6,821.9	6,820.1	39.1	4.6	81.62	1,276.2	832.8	219.5	178.7	40.83	5.377	
8,100.0	6,781.6	6,819.4	6,817.7	41.4	4.6	77.51	1,276.2	832.8	318.7	276.1	42.67	7.470	
8,200.0	6,780.9	6,817.0	6,815.2	43.8	4.6	73.52	1,276.2	832.9	418.3	373.9	44.37	9.428	
8,300.0	6,780.3	6,814.5	6,812.7	46.2	4.6	69.68	1,276.1	832.9	518.0	472.1	45.91	11.283	
8,400.0	6,779.7	6,812.0	6,810.3	48.7	4.6	66.00	1,276.1	833.0	617.8	570.5	47.29	13.064	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 650-GYD_CT												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	6,779.1	6,809.5	6,807.8	51.2	4.6	62.51	1,276.1	833.0	717.7	669.2	48.51	14.795	
8,600.0	6,778.5	6,807.0	6,805.2	53.8	4.6	59.22	1,276.0	833.1	817.5	768.0	49.57	16.493	
8,700.0	6,777.9	6,804.5	6,802.7	56.4	4.6	56.13	1,276.0	833.1	917.4	867.0	50.49	18.172	
8,800.0	6,777.3	6,801.9	6,800.2	59.0	4.6	53.24	1,276.0	833.2	1,017.4	966.1	51.28	19.841	
8,900.0	6,776.7	6,799.4	6,797.6	61.6	4.6	50.54	1,275.9	833.2	1,117.3	1,065.3	51.95	21.505	
9,000.0	6,776.1	6,796.8	6,795.0	64.2	4.6	48.03	1,275.9	833.2	1,217.2	1,164.7	52.54	23.167	
9,100.0	6,775.5	6,794.2	6,792.5	66.9	4.6	45.69	1,275.9	833.3	1,317.1	1,264.1	53.05	24.829	
9,200.0	6,774.9	6,791.6	6,789.9	69.6	4.6	43.52	1,275.8	833.3	1,417.1	1,363.6	53.49	26.492	
9,300.0	6,774.2	6,789.0	6,787.2	72.2	4.6	41.51	1,275.8	833.4	1,517.0	1,463.1	53.88	28.154	
9,400.0	6,773.6	6,786.3	6,784.6	74.9	4.6	39.63	1,275.8	833.4	1,617.0	1,562.7	54.23	29.815	
9,500.0	6,773.0	6,783.7	6,782.0	77.6	4.6	37.89	1,275.7	833.5	1,716.9	1,662.4	54.55	31.472	
9,600.0	6,772.4	6,781.0	6,779.3	80.3	4.6	36.27	1,275.7	833.5	1,816.9	1,762.0	54.85	33.123	
9,700.0	6,771.8	6,778.4	6,776.6	83.0	4.6	34.76	1,275.7	833.6	1,916.8	1,861.7	55.13	34.767	
9,800.0	6,771.2	6,775.7	6,773.9	85.7	4.6	33.35	1,275.6	833.7	2,016.8	1,961.4	55.40	36.402	
9,900.0	6,770.6	6,773.0	6,771.2	88.5	4.6	32.03	1,275.6	833.7	2,116.7	2,061.1	55.67	38.025	
10,000.0	6,770.0	6,770.3	6,768.5	91.2	4.6	30.81	1,275.5	833.8	2,216.7	2,160.8	55.93	39.635	
10,100.0	6,769.4	6,767.5	6,765.8	93.9	4.6	29.66	1,275.5	833.8	2,316.6	2,260.4	56.19	41.229	
10,200.0	6,768.8	6,764.8	6,763.0	96.7	4.6	28.58	1,275.5	833.9	2,416.6	2,360.1	56.45	42.807	
10,300.0	6,768.2	6,762.0	6,760.3	99.4	4.6	27.57	1,275.4	833.9	2,516.6	2,459.8	56.72	44.367	
10,400.0	6,767.5	6,759.2	6,757.5	102.2	4.6	26.62	1,275.4	834.0	2,616.5	2,559.5	57.00	45.907	
10,500.0	6,766.9	6,756.4	6,754.7	104.9	4.6	25.73	1,275.3	834.0	2,716.5	2,659.2	57.28	47.427	
10,600.0	6,766.3	6,753.6	6,751.9	107.7	4.6	24.88	1,275.3	834.1	2,816.4	2,758.9	57.57	48.924	
10,700.0	6,765.7	6,750.8	6,749.0	110.4	4.6	24.09	1,275.3	834.1	2,916.4	2,858.5	57.87	50.400	
10,800.0	6,765.1	6,747.9	6,746.2	113.2	4.6	23.34	1,275.2	834.2	3,016.3	2,958.2	58.17	51.851	
10,900.0	6,764.5	6,745.1	6,743.3	115.9	4.6	22.63	1,275.2	834.3	3,116.3	3,057.8	58.49	53.279	
11,000.0	6,763.9	6,742.2	6,740.5	118.7	4.6	21.96	1,275.1	834.3	3,216.3	3,157.4	58.82	54.682	
11,100.0	6,763.3	6,739.3	6,737.6	121.5	4.6	21.32	1,275.1	834.4	3,316.2	3,257.1	59.15	56.061	
11,200.0	6,762.7	6,736.4	6,734.6	124.2	4.6	20.72	1,275.1	834.4	3,416.2	3,356.7	59.50	57.414	
11,300.0	6,762.1	6,733.4	6,731.7	127.0	4.6	20.14	1,275.0	834.5	3,516.1	3,456.3	59.86	58.742	
11,400.0	6,761.5	6,730.5	6,728.8	129.8	4.6	19.60	1,275.0	834.6	3,616.1	3,555.9	60.22	60.044	
11,500.0	6,760.9	6,727.5	6,725.8	132.5	4.6	19.08	1,274.9	834.6	3,716.1	3,655.5	60.60	61.321	
11,600.0	6,760.3	6,724.5	6,722.8	135.3	4.6	18.58	1,274.9	834.7	3,816.0	3,755.0	60.99	62.572	
11,700.0	6,759.6	6,721.5	6,719.8	138.1	4.6	18.11	1,274.8	834.7	3,916.0	3,854.6	61.38	63.797	
11,800.0	6,759.0	6,718.5	6,716.8	140.8	4.6	17.66	1,274.8	834.8	4,015.9	3,954.2	61.79	64.998	
11,900.0	6,758.4	6,715.5	6,713.8	143.6	4.6	17.23	1,274.7	834.9	4,115.9	4,053.7	62.20	66.173	
11,971.6	6,758.0	6,713.3	6,711.6	145.6	4.6	16.93	1,274.7	834.9	4,187.5	4,125.0	62.50	66.999	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	77.5	77.5	0.0	0.1	6.91	2,852.5	345.5	2,873.4				
100.0	100.0	177.5	177.5	0.1	2.1	6.91	2,852.5	345.5	2,873.4	2,871.2	2.24	1,281.556	
200.0	200.0	277.5	277.5	0.3	4.3	6.91	2,852.5	345.5	2,873.4	2,868.7	4.65	617.344	
300.0	300.0	377.5	377.5	0.5	6.4	6.91	2,852.5	345.5	2,873.4	2,866.5	6.92	415.305	
400.0	400.0	477.5	477.5	0.8	8.4	6.91	2,852.5	345.5	2,873.4	2,864.2	9.17	313.403	
500.0	500.0	577.5	577.5	1.0	10.4	6.91	2,852.5	345.5	2,873.4	2,862.0	11.41	251.779	
600.0	600.0	677.5	677.5	1.2	12.4	19.65	2,852.5	345.5	2,871.7	2,858.1	13.65	210.428	
700.0	699.8	777.3	777.3	1.5	14.4	19.72	2,852.5	345.5	2,866.8	2,851.0	15.86	180.748	
800.0	799.5	877.0	877.0	1.7	16.5	19.83	2,852.5	345.5	2,858.6	2,840.6	18.05	158.404	
900.0	898.7	976.2	976.2	1.9	18.4	19.99	2,852.5	345.5	2,847.1	2,827.0	20.20	140.963	
1,000.0	997.5	1,075.0	1,075.0	2.2	20.4	20.20	2,852.5	345.5	2,832.4	2,810.1	22.31	126.955	
1,100.0	1,095.6	1,173.1	1,173.1	2.6	22.4	20.46	2,852.5	345.5	2,814.5	2,790.1	24.38	115.444	
1,200.0	1,193.1	1,270.6	1,270.6	3.0	24.4	20.78	2,852.5	345.5	2,793.4	2,767.0	26.40	105.803	
1,289.7	1,279.7	1,357.2	1,357.2	3.4	26.1	21.11	2,852.5	345.5	2,771.8	2,743.6	28.17	98.386	
1,300.0	1,289.6	1,367.1	1,367.1	3.4	26.3	21.13	2,852.5	345.5	2,769.1	2,740.7	28.40	97.515	
1,400.0	1,385.9	1,463.4	1,463.4	3.9	28.3	21.33	2,852.5	345.5	2,743.6	2,713.1	30.58	89.728	
1,500.0	1,482.1	1,559.6	1,559.6	4.4	30.2	21.54	2,852.5	345.5	2,718.2	2,685.4	32.77	82.956	
1,600.0	1,578.3	1,655.8	1,655.8	4.9	32.1	21.75	2,852.5	345.5	2,692.7	2,657.8	34.96	77.016	
1,700.0	1,674.5	1,752.0	1,752.0	5.5	34.1	21.97	2,852.5	345.5	2,667.4	2,630.2	37.17	71.767	
1,800.0	1,770.8	1,848.3	1,848.3	6.0	36.0	22.19	2,852.5	345.5	2,642.0	2,602.6	39.38	67.097	
1,900.0	1,867.0	1,944.5	1,944.5	6.5	37.9	22.41	2,852.5	345.5	2,616.7	2,575.1	41.59	62.917	
2,000.0	1,963.2	2,040.7	2,040.7	7.1	39.9	22.64	2,852.5	345.5	2,591.4	2,547.6	43.81	59.154	
2,100.0	2,059.4	2,136.9	2,136.9	7.6	41.8	22.87	2,852.5	345.5	2,566.2	2,520.1	46.03	55.749	
2,200.0	2,155.7	2,233.2	2,233.2	8.1	43.7	23.11	2,852.5	345.5	2,541.0	2,492.7	48.26	52.654	
2,300.0	2,251.9	2,329.4	2,329.4	8.7	45.7	23.35	2,852.5	345.5	2,515.8	2,465.3	50.49	49.829	
2,400.0	2,348.1	2,425.6	2,425.6	9.2	47.6	23.60	2,852.5	345.5	2,490.7	2,438.0	52.72	47.241	
2,500.0	2,444.3	2,521.8	2,521.8	9.8	49.5	23.85	2,852.5	345.5	2,465.6	2,410.7	54.96	44.860	
2,600.0	2,540.6	2,618.1	2,618.1	10.3	51.5	24.10	2,852.5	345.5	2,440.6	2,383.4	57.20	42.664	
2,700.0	2,636.8	2,714.3	2,714.3	10.9	53.4	24.37	2,852.5	345.5	2,415.6	2,356.2	59.45	40.632	
2,800.0	2,733.0	2,810.5	2,810.5	11.4	55.3	24.63	2,852.5	345.5	2,390.7	2,329.0	61.70	38.746	
2,900.0	2,829.2	2,906.7	2,906.7	12.0	57.3	24.91	2,852.5	345.5	2,365.8	2,301.9	63.96	36.992	
3,000.0	2,925.5	3,003.0	3,003.0	12.5	59.2	25.18	2,852.5	345.5	2,341.0	2,274.8	66.21	35.355	
3,100.0	3,021.7	3,099.2	3,099.2	13.1	61.2	25.47	2,852.5	345.5	2,316.2	2,247.8	68.48	33.825	
3,200.0	3,117.9	3,195.4	3,195.4	13.6	63.1	25.76	2,852.5	345.5	2,291.5	2,220.8	70.74	32.392	
3,300.0	3,214.1	3,291.6	3,291.6	14.2	65.0	26.06	2,852.5	345.5	2,266.9	2,193.9	73.01	31.047	
3,400.0	3,310.4	3,387.9	3,387.9	14.7	67.0	26.36	2,852.5	345.5	2,242.3	2,167.0	75.29	29.782	
3,500.0	3,406.6	3,484.1	3,484.1	15.3	68.9	26.67	2,852.5	345.5	2,217.7	2,140.2	77.57	28.590	
3,600.0	3,502.8	3,580.3	3,580.3	15.8	70.8	26.99	2,852.5	345.5	2,193.3	2,113.4	79.86	27.465	
3,700.0	3,599.0	3,676.5	3,676.5	16.4	72.8	27.31	2,852.5	345.5	2,168.9	2,086.7	82.15	26.403	
3,800.0	3,695.3	3,772.8	3,772.8	17.0	74.7	27.64	2,852.5	345.5	2,144.5	2,060.1	84.44	25.397	
3,900.0	3,791.5	3,869.0	3,869.0	17.5	76.6	27.98	2,852.5	345.5	2,120.2	2,033.5	86.74	24.444	
4,000.0	3,887.7	3,965.2	3,965.2	18.1	78.6	28.33	2,852.5	345.5	2,096.1	2,007.0	89.05	23.539	
4,100.0	3,983.9	4,061.4	4,061.4	18.6	80.5	28.68	2,852.5	345.5	2,071.9	1,980.6	91.36	22.680	
4,200.0	4,080.2	4,157.7	4,157.7	19.2	82.4	29.04	2,852.5	345.5	2,047.9	1,954.2	93.67	21.862	
4,300.0	4,176.4	4,253.9	4,253.9	19.7	84.4	29.41	2,852.5	345.5	2,023.9	1,927.9	96.00	21.083	
4,400.0	4,272.6	4,350.1	4,350.1	20.3	86.3	29.79	2,852.5	345.5	2,000.0	1,901.7	98.33	20.341	
4,500.0	4,368.8	4,446.3	4,446.3	20.8	88.2	30.18	2,852.5	345.5	1,976.2	1,875.6	100.66	19.633	
4,600.0	4,465.1	4,542.6	4,542.6	21.4	90.2	30.58	2,852.5	345.5	1,952.5	1,849.5	103.00	18.956	
4,700.0	4,561.3	4,638.8	4,638.8	21.9	92.1	30.99	2,852.5	345.5	1,928.9	1,823.6	105.35	18.309	
4,800.0	4,657.5	4,735.0	4,735.0	22.5	94.1	31.40	2,852.5	345.5	1,905.4	1,797.7	107.71	17.690	
4,900.0	4,753.7	4,831.2	4,831.2	23.1	96.0	31.83	2,852.5	345.5	1,882.0	1,771.9	110.07	17.098	
5,000.0	4,850.0	4,927.5	4,927.5	23.6	97.9	32.27	2,852.5	345.5	1,858.7	1,746.2	112.44	16.530	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,023.7	5,023.7	24.2	99.9	32.72	2,852.5	345.5	1,835.5	1,720.6	114.82	15.985	
5,200.0	5,042.4	5,119.9	5,119.9	24.7	101.8	33.18	2,852.5	345.5	1,812.4	1,695.2	117.21	15.462	
5,300.0	5,138.6	5,216.1	5,216.1	25.3	103.7	33.65	2,852.5	345.5	1,789.4	1,669.8	119.61	14.961	
5,400.0	5,234.9	5,312.4	5,312.4	25.8	105.7	34.13	2,852.5	345.5	1,766.5	1,644.5	122.01	14.478	
5,426.2	5,260.1	5,337.6	5,337.6	26.0	106.2	34.26	2,852.5	345.5	1,760.6	1,637.9	122.64	14.355	
5,500.0	5,331.3	5,408.8	5,408.8	26.3	107.6	34.42	2,852.5	345.5	1,744.6	1,619.7	124.83	13.976	
5,600.0	5,428.7	5,506.2	5,506.2	26.7	109.6	34.63	2,852.5	345.5	1,725.4	1,597.8	127.67	13.515	
5,700.0	5,526.7	5,604.2	5,604.2	27.0	111.5	34.81	2,852.5	345.5	1,709.2	1,578.8	130.41	13.106	
5,800.0	5,625.4	5,702.9	5,702.9	27.3	113.5	34.97	2,852.5	345.5	1,695.9	1,562.8	133.05	12.746	
5,900.0	5,724.6	5,802.1	5,802.1	27.6	115.5	35.10	2,852.5	345.5	1,685.4	1,549.8	135.58	12.431	
6,000.0	5,824.1	5,901.6	5,901.6	27.8	117.5	35.19	2,852.5	345.5	1,677.8	1,539.8	138.00	12.158	
6,100.0	5,924.0	6,001.5	6,001.5	28.0	119.5	35.25	2,852.5	345.5	1,673.1	1,532.8	140.28	11.927	
6,200.0	6,023.9	6,101.4	6,101.4	28.1	121.5	35.27	2,852.5	345.5	1,671.2	1,528.8	142.43	11.733	
6,215.9	6,039.8	6,117.3	6,117.3	28.1	121.8	22.55	2,852.5	345.5	1,671.2	1,524.7	146.50	11.407	
6,245.9	6,069.8	6,147.3	6,147.3	28.1	122.5	22.55	2,852.5	345.5	1,671.2	1,524.0	147.14	11.358	
6,250.0	6,073.9	6,151.4	6,151.4	28.1	122.5	-67.45	2,852.5	345.5	1,671.2	1,527.7	143.50	11.646	
6,300.0	6,123.9	6,201.4	6,201.4	28.2	123.5	-67.57	2,852.5	345.5	1,670.4	1,525.9	144.51	11.559	
6,350.0	6,173.6	6,251.1	6,251.1	28.2	124.5	-67.90	2,852.5	345.5	1,668.3	1,523.0	145.32	11.480	
6,400.0	6,222.7	6,300.2	6,300.2	28.2	125.5	-68.43	2,852.5	345.5	1,664.9	1,518.9	145.97	11.406	
6,450.0	6,271.2	6,348.7	6,348.7	28.2	126.5	-69.16	2,852.5	345.5	1,660.3	1,513.8	146.47	11.336	
6,500.0	6,318.6	6,396.1	6,396.1	28.2	127.5	-70.08	2,852.5	345.5	1,654.6	1,507.7	146.86	11.266	
6,550.0	6,364.9	6,442.4	6,442.4	28.2	128.4	-71.18	2,852.5	345.5	1,647.8	1,500.6	147.21	11.194	
6,600.0	6,409.7	6,487.2	6,487.2	28.2	129.3	-72.43	2,852.5	345.5	1,640.2	1,492.6	147.55	11.116	
6,650.0	6,452.8	6,530.3	6,530.3	28.2	130.2	-73.82	2,852.5	345.5	1,631.8	1,483.9	147.94	11.030	
6,700.0	6,494.1	6,571.6	6,571.6	28.2	131.0	-75.32	2,852.5	345.5	1,622.9	1,474.5	148.40	10.936	
6,750.0	6,533.3	6,610.8	6,610.8	28.2	131.8	-76.91	2,852.5	345.5	1,613.6	1,464.6	148.97	10.831	
6,800.0	6,570.3	6,647.8	6,647.8	28.2	132.5	-78.55	2,852.5	345.5	1,604.1	1,454.4	149.66	10.718	
6,850.0	6,604.8	6,682.3	6,682.3	28.2	133.2	-80.20	2,852.5	345.5	1,594.6	1,444.1	150.45	10.599	
6,900.0	6,636.7	6,714.2	6,714.2	28.2	133.9	-81.83	2,852.5	345.5	1,585.3	1,434.0	151.32	10.476	
6,950.0	6,665.8	6,743.3	6,743.3	28.2	134.4	-83.40	2,852.5	345.5	1,576.6	1,424.3	152.26	10.354	
7,000.0	6,692.1	6,769.6	6,769.6	28.2	135.0	-84.88	2,852.5	345.5	1,568.4	1,415.2	153.22	10.236	
7,050.0	6,715.3	6,792.8	6,792.8	28.2	135.4	-86.23	2,852.5	345.5	1,561.1	1,406.9	154.20	10.124	
7,100.0	6,735.4	6,812.9	6,812.9	28.2	135.8	-87.41	2,852.5	345.5	1,554.9	1,399.7	155.16	10.021	
7,150.0	6,752.2	6,829.7	6,829.7	28.3	136.2	-88.40	2,852.5	345.5	1,549.9	1,393.8	156.10	9.928	
7,200.0	6,765.7	6,843.2	6,843.2	28.3	136.4	-89.17	2,852.5	345.5	1,546.2	1,389.2	157.04	9.846	
7,250.0	6,775.8	6,853.3	6,853.3	28.4	136.7	-89.72	2,852.5	345.5	1,544.0	1,386.0	157.96	9.775	
7,295.5	6,782.0	6,859.5	6,859.5	28.6	136.8	-90.00	2,852.5	345.5	1,543.3	1,384.6	158.79	9.719 CC	
7,300.0	6,782.5	6,860.0	6,860.0	28.6	136.8	-90.02	2,852.5	345.5	1,543.4	1,384.5	158.87	9.715 ES	
7,350.0	6,785.7	6,863.2	6,863.2	28.8	136.8	-90.06	2,852.5	345.5	1,544.3	1,384.5	159.78	9.665	
7,375.3	6,786.0	6,863.5	6,863.5	29.0	136.9	-89.98	2,852.5	345.5	1,545.4	1,385.2	160.24	9.644	
7,400.0	6,785.8	6,863.3	6,863.3	29.1	136.9	-89.98	2,852.5	345.5	1,546.9	1,386.2	160.68	9.627	
7,500.0	6,785.2	6,862.7	6,862.7	30.0	136.8	-89.95	2,852.5	345.5	1,556.8	1,394.2	162.60	9.574	
7,600.0	6,784.6	6,862.1	6,862.1	31.2	136.8	-89.93	2,852.5	345.5	1,573.1	1,408.4	164.67	9.553 SF	
7,700.0	6,784.0	6,861.5	6,861.5	32.8	136.8	-89.91	2,852.5	345.5	1,595.4	1,428.6	166.85	9.562	
7,800.0	6,783.4	6,860.9	6,860.9	34.7	136.8	-89.89	2,852.5	345.5	1,623.6	1,454.5	169.13	9.600	
7,900.0	6,782.8	6,860.3	6,860.3	36.8	136.8	-89.86	2,852.5	345.5	1,657.4	1,486.0	171.48	9.665	
8,000.0	6,782.2	6,859.7	6,859.7	39.1	136.8	-89.84	2,852.5	345.5	1,696.5	1,522.6	173.90	9.755	
8,100.0	6,781.6	6,859.1	6,859.1	41.4	136.8	-89.82	2,852.5	345.5	1,740.3	1,564.0	176.36	9.868	
8,200.0	6,780.9	6,858.4	6,858.4	43.8	136.8	-89.80	2,852.5	345.5	1,788.8	1,609.9	178.87	10.000	
8,300.0	6,780.3	6,857.8	6,857.8	46.2	136.7	-89.77	2,852.5	345.5	1,841.3	1,659.9	181.41	10.150	
8,400.0	6,779.7	6,857.2	6,857.2	48.7	136.7	-89.75	2,852.5	345.5	1,897.7	1,713.7	183.99	10.315	
8,500.0	6,779.1	6,856.6	6,856.6	51.2	136.7	-89.73	2,852.5	345.5	1,957.6	1,771.0	186.58	10.492	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,778.5	6,856.0	6,856.0	53.8	136.7	-89.70	2,852.5	345.5	2,020.7	1,831.5	189.20	10.680	
8,700.0	6,777.9	6,855.4	6,855.4	56.4	136.7	-89.68	2,852.5	345.5	2,086.6	1,894.8	191.83	10.877	
8,800.0	6,777.3	6,854.8	6,854.8	59.0	136.7	-89.66	2,852.5	345.5	2,155.2	1,960.7	194.48	11.082	
8,900.0	6,776.7	6,854.2	6,854.2	61.6	136.7	-89.64	2,852.5	345.5	2,226.1	2,029.0	197.15	11.292	
9,000.0	6,776.1	6,853.6	6,853.6	64.2	136.7	-89.61	2,852.5	345.5	2,299.2	2,099.4	199.82	11.507	
9,100.0	6,775.5	6,853.0	6,853.0	66.9	136.6	-89.59	2,852.5	345.5	2,374.3	2,171.8	202.51	11.725	
9,200.0	6,774.9	6,852.4	6,852.4	69.6	136.6	-89.57	2,852.5	345.5	2,451.2	2,246.0	205.20	11.945	
9,300.0	6,774.2	6,851.7	6,851.7	72.2	136.6	-89.55	2,852.5	345.5	2,529.6	2,321.7	207.90	12.167	
9,400.0	6,773.6	6,851.1	6,851.1	74.9	136.6	-89.52	2,852.5	345.5	2,609.6	2,399.0	210.61	12.391	
9,500.0	6,773.0	6,850.5	6,850.5	77.6	136.6	-89.50	2,852.5	345.5	2,690.9	2,477.5	213.33	12.614	
9,600.0	6,772.4	6,849.9	6,849.9	80.3	136.6	-89.48	2,852.5	345.5	2,773.4	2,557.3	216.05	12.837	
9,700.0	6,771.8	6,849.3	6,849.3	83.0	136.6	-89.46	2,852.5	345.5	2,857.0	2,638.2	218.77	13.059	
9,800.0	6,771.2	6,848.7	6,848.7	85.7	136.6	-89.43	2,852.5	345.5	2,941.6	2,720.1	221.50	13.280	
9,900.0	6,770.6	6,848.1	6,848.1	88.5	136.5	-89.41	2,852.5	345.5	3,027.2	2,803.0	224.24	13.500	
10,000.0	6,770.0	6,847.5	6,847.5	91.2	136.5	-89.39	2,852.5	345.5	3,113.7	2,886.7	226.98	13.718	
10,100.0	6,769.4	6,846.9	6,846.9	93.9	136.5	-89.37	2,852.5	345.5	3,200.9	2,971.2	229.72	13.934	
10,200.0	6,768.8	6,846.3	6,846.3	96.7	136.5	-89.34	2,852.5	345.5	3,288.9	3,056.4	232.46	14.148	
10,300.0	6,768.2	6,845.7	6,845.7	99.4	136.5	-89.32	2,852.5	345.5	3,377.5	3,142.3	235.21	14.359	
10,400.0	6,767.5	6,845.0	6,845.0	102.2	136.5	-89.30	2,852.5	345.5	3,466.7	3,228.8	237.96	14.568	
10,500.0	6,766.9	6,844.4	6,844.4	104.9	136.5	-89.28	2,852.5	345.5	3,556.6	3,315.8	240.71	14.775	
10,600.0	6,766.3	6,843.8	6,843.8	107.7	136.5	-89.25	2,852.5	345.5	3,646.9	3,403.4	243.47	14.979	
10,700.0	6,765.7	6,843.2	6,843.2	110.4	136.4	-89.23	2,852.5	345.5	3,737.8	3,491.5	246.23	15.180	
10,800.0	6,765.1	6,842.6	6,842.6	113.2	136.4	-89.21	2,852.5	345.5	3,829.1	3,580.1	248.99	15.379	
10,900.0	6,764.5	6,842.0	6,842.0	115.9	136.4	-89.19	2,852.5	345.5	3,920.8	3,669.0	251.75	15.574	
11,000.0	6,763.9	6,841.4	6,841.4	118.7	136.4	-89.16	2,852.5	345.5	4,012.9	3,758.4	254.51	15.767	
11,100.0	6,763.3	6,840.8	6,840.8	121.5	136.4	-89.14	2,852.5	345.5	4,105.4	3,848.1	257.27	15.957	
11,200.0	6,762.7	6,840.2	6,840.2	124.2	136.4	-89.12	2,852.5	345.5	4,198.2	3,938.2	260.04	16.145	
11,300.0	6,762.1	6,839.6	6,839.6	127.0	136.4	-89.10	2,852.5	345.5	4,291.4	4,028.6	262.81	16.329	
11,400.0	6,761.5	6,839.0	6,839.0	129.8	136.4	-89.07	2,852.5	345.5	4,384.8	4,119.2	265.57	16.511	
11,500.0	6,760.9	6,838.4	6,838.4	132.5	136.3	-89.05	2,852.5	345.5	4,478.6	4,210.2	268.34	16.690	
11,600.0	6,760.3	6,837.8	6,837.8	135.3	136.3	-89.03	2,852.5	345.5	4,572.6	4,301.4	271.11	16.866	
11,700.0	6,759.6	6,837.1	6,837.1	138.1	136.3	-89.01	2,852.5	345.5	4,666.8	4,392.9	273.88	17.039	
11,800.0	6,759.0	6,836.5	6,836.5	140.8	136.3	-88.99	2,852.5	345.5	4,761.3	4,484.6	276.66	17.210	
11,900.0	6,758.4	6,835.9	6,835.9	143.6	136.3	-88.96	2,852.5	345.5	4,856.0	4,576.6	279.43	17.378	
11,971.6	6,758.0	6,835.5	6,835.5	145.6	136.3	-88.95	2,852.5	345.5	4,923.9	4,642.5	281.41	17.497	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	69.5	69.5	0.0	0.2	51.82	1,512.0	1,922.7	2,446.0				
100.0	100.0	169.5	169.5	0.1	2.0	51.82	1,512.0	1,922.7	2,446.0	2,443.9	2.11	1,158.762	
200.0	200.0	269.5	269.5	0.3	4.2	51.82	1,512.0	1,922.7	2,446.0	2,441.4	4.56	536.587	
300.0	300.0	369.5	369.5	0.5	6.3	51.82	1,512.0	1,922.7	2,446.0	2,439.1	6.83	358.187	
400.0	400.0	469.5	469.5	0.8	8.3	51.82	1,512.0	1,922.7	2,446.0	2,436.9	9.08	269.351	
500.0	500.0	569.5	569.5	1.0	10.3	51.82	1,512.0	1,922.7	2,446.0	2,434.6	11.33	215.951	
600.0	600.0	669.5	669.5	1.2	12.3	64.59	1,512.0	1,922.7	2,445.2	2,431.6	13.57	180.240	
700.0	699.8	769.3	769.3	1.5	14.4	64.74	1,512.0	1,922.7	2,443.0	2,427.2	15.80	154.607	
800.0	799.5	869.0	869.0	1.7	16.4	64.99	1,512.0	1,922.7	2,439.3	2,421.2	18.04	135.246	
900.0	898.7	968.2	968.2	1.9	18.4	65.34	1,512.0	1,922.7	2,434.1	2,413.8	20.28	120.044	
1,000.0	997.5	1,067.0	1,067.0	2.2	20.4	65.80	1,512.0	1,922.7	2,427.6	2,405.0	22.53	107.738	
1,100.0	1,095.6	1,165.1	1,165.1	2.6	22.3	66.35	1,512.0	1,922.7	2,419.7	2,394.9	24.81	97.534	
1,200.0	1,193.1	1,262.6	1,262.6	3.0	24.3	66.99	1,512.0	1,922.7	2,410.6	2,383.5	27.11	88.908	
1,289.7	1,279.7	1,349.2	1,349.2	3.4	26.0	67.65	1,512.0	1,922.7	2,401.5	2,372.2	29.21	82.217	
1,300.0	1,289.6	1,359.1	1,359.1	3.4	26.2	67.71	1,512.0	1,922.7	2,400.4	2,370.9	29.46	81.491	
1,400.0	1,385.9	1,455.4	1,455.4	3.9	28.2	68.30	1,512.0	1,922.7	2,389.8	2,358.0	31.86	75.021	
1,500.0	1,482.1	1,551.6	1,551.6	4.4	30.1	68.89	1,512.0	1,922.7	2,379.6	2,345.3	34.27	69.427	
1,600.0	1,578.3	1,647.8	1,647.8	4.9	32.0	69.48	1,512.0	1,922.7	2,369.5	2,332.8	36.71	64.552	
1,700.0	1,674.5	1,744.0	1,744.0	5.5	34.0	70.08	1,512.0	1,922.7	2,359.8	2,320.7	39.15	60.274	
1,800.0	1,770.8	1,840.3	1,840.3	6.0	35.9	70.68	1,512.0	1,922.7	2,350.4	2,308.8	41.61	56.492	
1,900.0	1,867.0	1,936.5	1,936.5	6.5	37.8	71.29	1,512.0	1,922.7	2,341.2	2,297.1	44.07	53.129	
2,000.0	1,963.2	2,032.7	2,032.7	7.1	39.8	71.90	1,512.0	1,922.7	2,332.3	2,285.8	46.53	50.121	
2,100.0	2,059.4	2,128.9	2,128.9	7.6	41.7	72.52	1,512.0	1,922.7	2,323.7	2,274.7	49.01	47.416	
2,200.0	2,155.7	2,225.2	2,225.2	8.1	43.7	73.14	1,512.0	1,922.7	2,315.4	2,263.9	51.48	44.972	
2,300.0	2,251.9	2,321.4	2,321.4	8.7	45.6	73.76	1,512.0	1,922.7	2,307.3	2,253.4	53.97	42.755	
2,400.0	2,348.1	2,417.6	2,417.6	9.2	47.5	74.39	1,512.0	1,922.7	2,299.6	2,243.1	56.45	40.735	
2,500.0	2,444.3	2,513.8	2,513.8	9.8	49.5	75.02	1,512.0	1,922.7	2,292.2	2,233.2	58.94	38.888	
2,600.0	2,540.6	2,610.1	2,610.1	10.3	51.4	75.66	1,512.0	1,922.7	2,285.0	2,223.6	61.44	37.194	
2,700.0	2,636.8	2,706.3	2,706.3	10.9	53.3	76.30	1,512.0	1,922.7	2,278.2	2,214.2	63.93	35.635	
2,800.0	2,733.0	2,802.5	2,802.5	11.4	55.3	76.94	1,512.0	1,922.7	2,271.6	2,205.2	66.43	34.197	
2,900.0	2,829.2	2,898.7	2,898.7	12.0	57.2	77.59	1,512.0	1,922.7	2,265.4	2,196.5	68.93	32.866	
3,000.0	2,925.5	2,995.0	2,995.0	12.5	59.1	78.24	1,512.0	1,922.7	2,259.5	2,188.1	71.43	31.632	
3,100.0	3,021.7	3,091.2	3,091.2	13.1	61.1	78.89	1,512.0	1,922.7	2,253.9	2,180.0	73.93	30.485	
3,200.0	3,117.9	3,187.4	3,187.4	13.6	63.0	79.55	1,512.0	1,922.7	2,248.6	2,172.2	76.44	29.417	
3,300.0	3,214.1	3,283.6	3,283.6	14.2	64.9	80.20	1,512.0	1,922.7	2,243.7	2,164.7	78.94	28.421	
3,400.0	3,310.4	3,379.9	3,379.9	14.7	66.9	80.87	1,512.0	1,922.7	2,239.0	2,157.6	81.45	27.489	
3,500.0	3,406.6	3,476.1	3,476.1	15.3	68.8	81.53	1,512.0	1,922.7	2,234.7	2,150.7	83.96	26.617	
3,600.0	3,502.8	3,572.3	3,572.3	15.8	70.7	82.19	1,512.0	1,922.7	2,230.7	2,144.2	86.46	25.799	
3,700.0	3,599.0	3,668.5	3,668.5	16.4	72.7	82.86	1,512.0	1,922.7	2,227.0	2,138.0	88.97	25.031	
3,800.0	3,695.3	3,764.8	3,764.8	17.0	74.6	83.53	1,512.0	1,922.7	2,223.7	2,132.2	91.48	24.308	
3,900.0	3,791.5	3,861.0	3,861.0	17.5	76.6	84.20	1,512.0	1,922.7	2,220.6	2,126.7	93.98	23.628	
4,000.0	3,887.7	3,957.2	3,957.2	18.1	78.5	84.88	1,512.0	1,922.7	2,218.0	2,121.5	96.49	22.987	
4,100.0	3,983.9	4,053.4	4,053.4	18.6	80.4	85.55	1,512.0	1,922.7	2,215.6	2,116.6	98.99	22.381	
4,200.0	4,080.2	4,149.7	4,149.7	19.2	82.4	86.23	1,512.0	1,922.7	2,213.6	2,112.1	101.50	21.810	
4,300.0	4,176.4	4,245.9	4,245.9	19.7	84.3	86.91	1,512.0	1,922.7	2,211.9	2,107.9	104.00	21.269	
4,400.0	4,272.6	4,342.1	4,342.1	20.3	86.2	87.58	1,512.0	1,922.7	2,210.5	2,104.0	106.49	20.757	
4,500.0	4,368.8	4,438.3	4,438.3	20.8	88.2	88.26	1,512.0	1,922.7	2,209.5	2,100.5	108.99	20.272	
4,600.0	4,465.1	4,534.6	4,534.6	21.4	90.1	88.94	1,512.0	1,922.7	2,208.8	2,097.3	111.49	19.813	
4,700.0	4,561.3	4,630.8	4,630.8	21.9	92.0	89.62	1,512.0	1,922.7	2,208.4	2,094.5	113.98	19.376	
4,755.9	4,615.0	4,684.5	4,684.5	22.3	93.1	90.00	1,512.0	1,922.7	2,208.4	2,093.0	115.37	19.142	
4,800.0	4,657.5	4,727.0	4,727.0	22.5	94.0	90.30	1,512.0	1,922.7	2,208.4	2,092.0	116.47	18.962	
4,900.0	4,753.7	4,823.2	4,823.2	23.1	95.9	90.98	1,512.0	1,922.7	2,208.7	2,089.8	118.95	18.569	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,850.0	4,919.5	4,919.5	23.6	97.8	91.66	1,512.0	1,922.7	2,209.4	2,088.0	121.43	18.194	
5,100.0	4,946.2	5,015.7	5,015.7	24.2	99.8	92.34	1,512.0	1,922.7	2,210.4	2,086.5	123.91	17.838	
5,200.0	5,042.4	5,111.9	5,111.9	24.7	101.7	93.02	1,512.0	1,922.7	2,211.7	2,085.3	126.39	17.500	
5,300.0	5,138.6	5,208.1	5,208.1	25.3	103.6	93.69	1,512.0	1,922.7	2,213.4	2,084.5	128.86	17.177	
5,400.0	5,234.9	5,304.4	5,304.4	25.8	105.6	94.37	1,512.0	1,922.7	2,215.3	2,084.0	131.32	16.870	
5,426.2	5,260.1	5,329.6	5,329.6	26.0	106.1	94.55	1,512.0	1,922.7	2,215.9	2,084.0	131.97	16.791	
5,500.0	5,331.3	5,400.8	5,400.8	26.3	107.5	95.06	1,512.0	1,922.7	2,217.6	2,083.8	133.74	16.582	
5,600.0	5,428.7	5,498.2	5,498.2	26.7	109.5	95.68	1,512.0	1,922.7	2,219.8	2,083.7	136.06	16.315	
5,700.0	5,526.7	5,596.2	5,596.2	27.0	111.4	96.21	1,512.0	1,922.7	2,221.9	2,083.5	138.35	16.060	
5,800.0	5,625.4	5,694.9	5,694.9	27.3	113.4	96.66	1,512.0	1,922.7	2,223.7	2,083.1	140.62	15.814	
5,900.0	5,724.6	5,794.1	5,794.1	27.6	115.4	97.01	1,512.0	1,922.7	2,225.2	2,082.4	142.85	15.577	
6,000.0	5,824.1	5,893.6	5,893.6	27.8	117.4	97.27	1,512.0	1,922.7	2,226.4	2,081.3	145.06	15.348	
6,100.0	5,924.0	5,993.5	5,993.5	28.0	119.4	97.43	1,512.0	1,922.7	2,227.1	2,079.9	147.22	15.128	
6,200.0	6,023.9	6,093.4	6,093.4	28.1	121.4	97.50	1,512.0	1,922.7	2,227.4	2,078.1	149.35	14.914	
6,215.9	6,039.8	6,109.3	6,109.3	28.1	121.8	97.50	1,512.0	1,922.7	2,227.4	2,078.1	149.35	14.914	
6,245.9	6,069.8	6,139.3	6,139.3	28.1	122.4	97.50	1,512.0	1,922.7	2,227.4	2,078.1	149.35	14.914	
6,250.0	6,073.9	6,143.4	6,143.4	28.1	122.5	-5.22	1,512.0	1,922.7	2,227.4	2,077.0	150.40	14.810	
6,300.0	6,123.9	6,193.4	6,193.4	28.2	123.5	-5.24	1,512.0	1,922.7	2,225.4	2,074.4	151.01	14.736	
6,350.0	6,173.6	6,243.1	6,243.1	28.2	124.5	-5.30	1,512.0	1,922.7	2,219.9	2,069.0	150.89	14.712	
6,400.0	6,222.7	6,292.2	6,292.2	28.2	125.4	-5.39	1,512.0	1,922.7	2,211.0	2,061.0	150.03	14.737	
6,450.0	6,271.2	6,340.7	6,340.7	28.2	126.4	-5.51	1,512.0	1,922.7	2,198.7	2,050.3	148.40	14.815	
6,500.0	6,318.6	6,388.1	6,388.1	28.2	127.4	-5.68	1,512.0	1,922.7	2,183.0	2,037.0	146.03	14.949	
6,550.0	6,364.9	6,434.4	6,434.4	28.2	128.3	-5.90	1,512.0	1,922.7	2,164.1	2,021.2	142.90	15.144	
6,600.0	6,409.7	6,479.2	6,479.2	28.2	129.2	-6.17	1,512.0	1,922.7	2,142.0	2,003.0	139.04	15.405	
6,650.0	6,452.8	6,522.3	6,522.3	28.2	130.1	-6.50	1,512.0	1,922.7	2,116.9	1,982.4	134.47	15.742	
6,700.0	6,494.1	6,563.6	6,563.6	28.2	130.9	-6.90	1,512.0	1,922.7	2,088.8	1,959.6	129.22	16.165	
6,750.0	6,533.3	6,602.8	6,602.8	28.2	131.7	-7.40	1,512.0	1,922.7	2,058.0	1,934.6	123.34	16.685	
6,800.0	6,570.3	6,639.8	6,639.8	28.2	132.4	-8.01	1,512.0	1,922.7	2,024.5	1,907.6	116.90	17.319	
6,850.0	6,604.8	6,674.3	6,674.3	28.2	133.1	-8.76	1,512.0	1,922.7	1,988.5	1,878.5	109.98	18.080	
6,900.0	6,636.7	6,706.2	6,706.2	28.2	133.8	-9.71	1,512.0	1,922.7	1,950.2	1,847.5	102.75	18.981	
6,950.0	6,665.8	6,735.3	6,735.3	28.2	134.4	-10.90	1,512.0	1,922.7	1,909.9	1,814.4	95.41	20.017	
7,000.0	6,692.1	6,761.6	6,761.6	28.2	134.9	-12.44	1,512.0	1,922.7	1,867.6	1,779.2	88.34	21.139	
7,050.0	6,715.3	6,784.8	6,784.8	28.2	135.4	-14.48	1,512.0	1,922.7	1,823.5	1,741.4	82.19	22.187	
7,100.0	6,735.4	6,804.9	6,804.9	28.2	135.8	-17.27	1,512.0	1,922.7	1,778.1	1,700.0	78.07	22.774	
7,150.0	6,752.2	6,821.7	6,821.7	28.3	136.1	-21.23	1,512.0	1,922.7	1,731.3	1,653.4	77.90	22.224	
7,200.0	6,765.7	6,835.2	6,835.2	28.3	136.4	-27.17	1,512.0	1,922.7	1,683.5	1,599.0	84.51	19.920	
7,250.0	6,775.8	6,845.3	6,845.3	28.4	136.6	-36.65	1,512.0	1,922.7	1,634.9	1,533.7	101.26	16.146	
7,300.0	6,782.5	6,852.0	6,852.0	28.6	136.7	-52.53	1,512.0	1,922.7	1,585.8	1,456.2	129.53	12.242	
7,350.0	6,785.7	6,855.2	6,855.2	28.8	136.8	-77.65	1,512.0	1,922.7	1,536.3	1,379.3	156.97	9.787	
7,375.3	6,786.0	6,855.5	6,855.5	29.0	136.8	-92.58	1,512.0	1,922.7	1,511.3	1,351.5	159.81	9.457	
7,400.0	6,785.8	6,855.3	6,855.3	29.1	136.8	-92.54	1,512.0	1,922.7	1,486.8	1,326.5	160.26	9.277	
7,500.0	6,785.2	6,854.7	6,854.7	30.0	136.8	-92.37	1,512.0	1,922.7	1,387.8	1,225.6	162.21	8.555	
7,600.0	6,784.6	6,854.1	6,854.1	31.2	136.7	-92.20	1,512.0	1,922.7	1,288.9	1,124.6	164.31	7.845	
7,700.0	6,784.0	6,853.5	6,853.5	32.8	136.7	-92.02	1,512.0	1,922.7	1,190.3	1,023.8	166.52	7.148	
7,800.0	6,783.4	6,852.9	6,852.9	34.7	136.7	-91.85	1,512.0	1,922.7	1,091.9	923.0	168.82	6.467	
7,900.0	6,782.8	6,852.3	6,852.3	36.8	136.7	-91.68	1,512.0	1,922.7	993.8	822.6	171.20	5.805	
8,000.0	6,782.2	6,851.7	6,851.7	39.1	136.7	-91.51	1,512.0	1,922.7	896.1	722.5	173.65	5.161	
8,100.0	6,781.6	6,851.1	6,851.1	41.4	136.7	-91.33	1,512.0	1,922.7	799.0	622.9	176.14	4.536	
8,200.0	6,780.9	6,850.4	6,850.4	43.8	136.7	-91.16	1,512.0	1,922.7	702.8	524.1	178.67	3.933	
8,300.0	6,780.3	6,849.8	6,849.8	46.2	136.7	-90.99	1,512.0	1,922.7	607.7	426.5	181.23	3.353	
8,400.0	6,779.7	6,849.2	6,849.2	48.7	136.6	-90.82	1,512.0	1,922.7	514.5	330.7	183.82	2.799	
8,500.0	6,779.1	6,848.6	6,848.6	51.2	136.6	-90.64	1,512.0	1,922.7	424.5	238.0	186.43	2.277	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,778.5	6,848.0	6,848.0	53.8	136.6	-90.47	1,512.0	1,922.7	340.0	150.9	189.07	1.798	
8,700.0	6,777.9	6,847.4	6,847.4	56.4	136.6	-90.30	1,512.0	1,922.7	266.5	74.8	191.71	1.390	Level 3
8,800.0	6,777.3	6,846.8	6,846.8	59.0	136.6	-90.13	1,512.0	1,922.7	215.5	21.1	194.38	1.108	Level 2
8,872.9	6,776.8	6,846.3	6,846.3	60.9	136.6	-90.00	1,512.0	1,922.7	202.8	6.4	196.32	1.033	Level 2, CC, ES, SF
8,900.0	6,776.7	6,846.2	6,846.2	61.6	136.6	-89.95	1,512.0	1,922.7	204.6	7.5	197.05	1.038	Level 2
9,000.0	6,776.1	6,845.6	6,845.6	64.2	136.6	-89.78	1,512.0	1,922.7	239.3	39.6	199.73	1.198	Level 2
9,100.0	6,775.5	6,845.0	6,845.0	66.9	136.6	-89.61	1,512.0	1,922.7	304.4	102.0	202.42	1.504	
9,200.0	6,774.9	6,844.4	6,844.4	69.6	136.5	-89.44	1,512.0	1,922.7	384.8	179.7	205.12	1.876	
9,300.0	6,774.2	6,843.7	6,843.7	72.2	136.5	-89.26	1,512.0	1,922.7	472.8	265.0	207.83	2.275	
9,400.0	6,773.6	6,843.1	6,843.1	74.9	136.5	-89.09	1,512.0	1,922.7	564.7	354.2	210.54	2.682	
9,500.0	6,773.0	6,842.5	6,842.5	77.6	136.5	-88.92	1,512.0	1,922.7	659.1	445.8	213.25	3.091	
9,600.0	6,772.4	6,841.9	6,841.9	80.3	136.5	-88.75	1,512.0	1,922.7	754.8	538.9	215.97	3.495	
9,700.0	6,771.8	6,841.3	6,841.3	83.0	136.5	-88.58	1,512.0	1,922.7	851.6	632.9	218.69	3.894	
9,800.0	6,771.2	6,840.7	6,840.7	85.7	136.5	-88.41	1,512.0	1,922.7	949.0	727.6	221.41	4.286	
9,900.0	6,770.6	6,840.1	6,840.1	88.5	136.5	-88.23	1,512.0	1,922.7	1,046.9	822.8	224.13	4.671	
10,000.0	6,770.0	6,839.5	6,839.5	91.2	136.5	-88.06	1,512.0	1,922.7	1,145.2	918.3	226.86	5.048	
10,100.0	6,769.4	6,838.9	6,838.9	93.9	136.4	-87.89	1,512.0	1,922.7	1,243.7	1,014.1	229.59	5.417	
10,200.0	6,768.8	6,838.3	6,838.3	96.7	136.4	-87.72	1,512.0	1,922.7	1,342.5	1,110.2	232.31	5.779	
10,300.0	6,768.2	6,837.7	6,837.7	99.4	136.4	-87.55	1,512.0	1,922.7	1,441.4	1,206.4	235.04	6.133	
10,400.0	6,767.5	6,837.0	6,837.0	102.2	136.4	-87.38	1,512.0	1,922.7	1,540.5	1,302.7	237.77	6.479	
10,500.0	6,766.9	6,836.4	6,836.4	104.9	136.4	-87.21	1,512.0	1,922.7	1,639.7	1,399.2	240.50	6.818	
10,600.0	6,766.3	6,835.8	6,835.8	107.7	136.4	-87.04	1,512.0	1,922.7	1,738.9	1,495.7	243.22	7.150	
10,700.0	6,765.7	6,835.2	6,835.2	110.4	136.4	-86.86	1,512.0	1,922.7	1,838.3	1,592.3	245.95	7.474	
10,800.0	6,765.1	6,834.6	6,834.6	113.2	136.4	-86.69	1,512.0	1,922.7	1,937.7	1,689.0	248.67	7.792	
10,900.0	6,764.5	6,834.0	6,834.0	115.9	136.3	-86.52	1,512.0	1,922.7	2,037.2	1,785.8	251.40	8.103	
11,000.0	6,763.9	6,833.4	6,833.4	118.7	136.3	-86.35	1,512.0	1,922.7	2,136.7	1,882.6	254.12	8.408	
11,100.0	6,763.3	6,832.8	6,832.8	121.5	136.3	-86.18	1,512.0	1,922.7	2,236.3	1,979.4	256.84	8.707	
11,200.0	6,762.7	6,832.2	6,832.2	124.2	136.3	-86.01	1,512.0	1,922.7	2,335.9	2,076.3	259.56	8.999	
11,300.0	6,762.1	6,831.6	6,831.6	127.0	136.3	-85.84	1,512.0	1,922.7	2,435.5	2,173.2	262.28	9.286	
11,400.0	6,761.5	6,831.0	6,831.0	129.8	136.3	-85.67	1,512.0	1,922.7	2,535.2	2,270.2	264.99	9.567	
11,500.0	6,760.9	6,830.4	6,830.4	132.5	136.3	-85.50	1,512.0	1,922.7	2,634.9	2,367.2	267.70	9.842	
11,600.0	6,760.3	6,829.8	6,829.8	135.3	136.3	-85.33	1,512.0	1,922.7	2,734.6	2,464.2	270.41	10.113	
11,700.0	6,759.6	6,829.1	6,829.1	138.1	136.2	-85.16	1,512.0	1,922.7	2,834.3	2,561.2	273.12	10.377	
11,800.0	6,759.0	6,828.5	6,828.5	140.8	136.2	-84.99	1,512.0	1,922.7	2,934.1	2,658.2	275.83	10.637	
11,900.0	6,758.4	6,827.9	6,827.9	143.6	136.2	-84.82	1,512.0	1,922.7	3,033.8	2,755.3	278.53	10.892	
11,971.6	6,758.0	6,827.5	6,827.5	145.6	136.2	-84.70	1,512.0	1,922.7	3,105.3	2,824.8	280.46	11.072	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	26.5	26.5	0.0	0.2	85.66	127.6	1,680.4	1,685.2				
100.0	100.0	126.5	126.5	0.1	1.4	85.66	127.6	1,680.4	1,685.2	1,683.7	1.53	1,102.302	
200.0	200.0	226.5	226.5	0.3	3.7	85.66	127.6	1,680.4	1,685.2	1,681.1	4.06	415.038	
300.0	300.0	326.5	326.5	0.5	5.8	85.66	127.6	1,680.4	1,685.2	1,678.8	6.36	265.109	
400.0	400.0	426.5	426.5	0.8	7.8	85.66	127.6	1,680.4	1,685.2	1,676.6	8.62	195.495	
500.0	500.0	526.5	526.5	1.0	9.9	85.66	127.6	1,680.4	1,685.2	1,674.3	10.87	155.004	
600.0	600.0	626.5	626.5	1.2	11.9	98.43	127.6	1,680.4	1,685.4	1,672.3	13.12	128.497	
700.0	699.8	726.3	726.3	1.5	13.9	98.59	127.6	1,680.4	1,686.2	1,670.9	15.36	109.797	
800.0	799.5	826.0	826.0	1.7	15.9	98.86	127.6	1,680.4	1,687.5	1,669.9	17.60	95.867	
900.0	898.7	925.2	925.2	1.9	17.9	99.22	127.6	1,680.4	1,689.5	1,669.6	19.86	85.063	
1,000.0	997.5	1,024.0	1,024.0	2.2	19.9	99.69	127.6	1,680.4	1,692.1	1,669.9	22.14	76.423	
1,100.0	1,095.6	1,122.1	1,122.1	2.6	21.9	100.25	127.6	1,680.4	1,695.4	1,671.0	24.45	69.350	
1,200.0	1,193.1	1,219.6	1,219.6	3.0	23.8	100.89	127.6	1,680.4	1,699.7	1,672.9	26.79	63.455	
1,289.7	1,279.7	1,306.2	1,306.2	3.4	25.6	101.54	127.6	1,680.4	1,704.3	1,675.4	28.91	58.954	
1,300.0	1,289.6	1,316.1	1,316.1	3.4	25.8	101.63	127.6	1,680.4	1,704.9	1,675.7	29.16	58.475	
1,400.0	1,385.9	1,412.4	1,412.4	3.9	27.7	102.49	127.6	1,680.4	1,710.8	1,679.2	31.56	54.212	
1,500.0	1,482.1	1,508.6	1,508.6	4.4	29.7	103.34	127.6	1,680.4	1,717.1	1,683.1	33.97	50.546	
1,600.0	1,578.3	1,604.8	1,604.8	4.9	31.6	104.19	127.6	1,680.4	1,723.8	1,687.4	36.39	47.369	
1,700.0	1,674.5	1,701.0	1,701.0	5.5	33.5	105.03	127.6	1,680.4	1,730.9	1,692.1	38.81	44.595	
1,800.0	1,770.8	1,797.3	1,797.3	6.0	35.5	105.87	127.6	1,680.4	1,738.5	1,697.2	41.24	42.156	
1,900.0	1,867.0	1,893.5	1,893.5	6.5	37.4	106.70	127.6	1,680.4	1,746.4	1,702.7	43.66	39.997	
2,000.0	1,963.2	1,989.7	1,989.7	7.1	39.3	107.52	127.6	1,680.4	1,754.7	1,708.6	46.08	38.076	
2,100.0	2,059.4	2,085.9	2,085.9	7.6	41.3	108.34	127.6	1,680.4	1,763.3	1,714.8	48.50	36.356	
2,200.0	2,155.7	2,182.2	2,182.2	8.1	43.2	109.14	127.6	1,680.4	1,772.4	1,721.5	50.92	34.809	
2,300.0	2,251.9	2,278.4	2,278.4	8.7	45.2	109.94	127.6	1,680.4	1,781.8	1,728.5	53.33	33.412	
2,400.0	2,348.1	2,374.6	2,374.6	9.2	47.1	110.73	127.6	1,680.4	1,791.6	1,735.8	55.73	32.145	
2,500.0	2,444.3	2,470.8	2,470.8	9.8	49.0	111.52	127.6	1,680.4	1,801.7	1,743.6	58.14	30.992	
2,600.0	2,540.6	2,567.1	2,567.1	10.3	51.0	112.29	127.6	1,680.4	1,812.2	1,751.7	60.53	29.938	
2,700.0	2,636.8	2,663.3	2,663.3	10.9	52.9	113.06	127.6	1,680.4	1,823.1	1,760.1	62.92	28.973	
2,800.0	2,733.0	2,759.5	2,759.5	11.4	54.8	113.82	127.6	1,680.4	1,834.2	1,768.9	65.31	28.086	
2,900.0	2,829.2	2,855.7	2,855.7	12.0	56.8	114.56	127.6	1,680.4	1,845.7	1,778.1	67.69	27.269	
3,000.0	2,925.5	2,952.0	2,952.0	12.5	58.7	115.30	127.6	1,680.4	1,857.6	1,787.5	70.06	26.514	
3,100.0	3,021.7	3,048.2	3,048.2	13.1	60.6	116.04	127.6	1,680.4	1,869.7	1,797.3	72.43	25.815	
3,200.0	3,117.9	3,144.4	3,144.4	13.6	62.6	116.76	127.6	1,680.4	1,882.2	1,807.4	74.79	25.167	
3,300.0	3,214.1	3,240.6	3,240.6	14.2	64.5	117.47	127.6	1,680.4	1,895.0	1,817.9	77.14	24.564	
3,400.0	3,310.4	3,336.9	3,336.9	14.7	66.4	118.17	127.6	1,680.4	1,908.1	1,828.6	79.49	24.003	
3,500.0	3,406.6	3,433.1	3,433.1	15.3	68.4	118.87	127.6	1,680.4	1,921.5	1,839.6	81.84	23.479	
3,600.0	3,502.8	3,529.3	3,529.3	15.8	70.3	119.56	127.6	1,680.4	1,935.2	1,851.0	84.17	22.990	
3,700.0	3,599.0	3,625.5	3,625.5	16.4	72.2	120.23	127.6	1,680.4	1,949.1	1,862.6	86.51	22.532	
3,800.0	3,695.3	3,721.8	3,721.8	17.0	74.2	120.90	127.6	1,680.4	1,963.4	1,874.5	88.83	22.102	
3,900.0	3,791.5	3,818.0	3,818.0	17.5	76.1	121.56	127.6	1,680.4	1,977.9	1,886.7	91.15	21.699	
4,000.0	3,887.7	3,914.2	3,914.2	18.1	78.1	122.21	127.6	1,680.4	1,992.6	1,899.2	93.46	21.320	
4,100.0	3,983.9	4,010.4	4,010.4	18.6	80.0	122.85	127.6	1,680.4	2,007.7	1,911.9	95.77	20.963	
4,200.0	4,080.2	4,106.7	4,106.7	19.2	81.9	123.48	127.6	1,680.4	2,023.0	1,924.9	98.07	20.627	
4,300.0	4,176.4	4,202.9	4,202.9	19.7	83.9	124.10	127.6	1,680.4	2,038.5	1,938.1	100.37	20.310	
4,400.0	4,272.6	4,299.1	4,299.1	20.3	85.8	124.71	127.6	1,680.4	2,054.3	1,951.6	102.66	20.011	
4,500.0	4,368.8	4,395.3	4,395.3	20.8	87.7	125.31	127.6	1,680.4	2,070.3	1,965.4	104.94	19.728	
4,600.0	4,465.1	4,491.6	4,491.6	21.4	89.7	125.91	127.6	1,680.4	2,086.6	1,979.3	107.22	19.460	
4,700.0	4,561.3	4,587.8	4,587.8	21.9	91.6	126.50	127.6	1,680.4	2,103.0	1,993.5	109.50	19.206	
4,800.0	4,657.5	4,684.0	4,684.0	22.5	93.5	127.07	127.6	1,680.4	2,119.7	2,008.0	111.77	18.966	
4,900.0	4,753.7	4,780.2	4,780.2	23.1	95.5	127.64	127.6	1,680.4	2,136.7	2,022.6	114.03	18.737	
5,000.0	4,850.0	4,876.5	4,876.5	23.6	97.4	128.20	127.6	1,680.4	2,153.8	2,037.5	116.29	18.521	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	4,972.7	4,972.7	24.2	99.3	128.75	127.6	1,680.4	2,171.1	2,052.6	118.55	18.315	
5,200.0	5,042.4	5,068.9	5,068.9	24.7	101.3	129.30	127.6	1,680.4	2,188.6	2,067.8	120.80	18.119	
5,300.0	5,138.6	5,165.1	5,165.1	25.3	103.2	129.83	127.6	1,680.4	2,206.4	2,083.3	123.04	17.932	
5,400.0	5,234.9	5,261.4	5,261.4	25.8	105.1	130.36	127.6	1,680.4	2,224.3	2,099.0	125.28	17.754	
5,426.2	5,260.1	5,286.6	5,286.6	26.0	105.7	130.49	127.6	1,680.4	2,229.0	2,103.2	125.87	17.709	
5,500.0	5,331.3	5,357.8	5,357.8	26.3	107.1	131.06	127.6	1,680.4	2,241.8	2,114.1	127.74	17.550	
5,600.0	5,428.7	5,455.2	5,455.2	26.7	109.0	131.72	127.6	1,680.4	2,257.3	2,127.0	130.22	17.335	
5,700.0	5,526.7	5,553.2	5,553.2	27.0	111.0	132.29	127.6	1,680.4	2,270.5	2,137.9	132.66	17.115	
5,800.0	5,625.4	5,651.9	5,651.9	27.3	113.0	132.75	127.6	1,680.4	2,281.6	2,146.5	135.07	16.892	
5,900.0	5,724.6	5,751.1	5,751.1	27.6	115.0	133.11	127.6	1,680.4	2,290.3	2,152.8	137.42	16.666	
6,000.0	5,824.1	5,850.6	5,850.6	27.8	117.0	133.37	127.6	1,680.4	2,296.6	2,156.9	139.71	16.438	
6,100.0	5,924.0	5,950.5	5,950.5	28.0	119.0	133.53	127.6	1,680.4	2,300.6	2,158.7	141.93	16.209	
6,200.0	6,023.9	6,050.4	6,050.4	28.1	121.0	133.60	127.6	1,680.4	2,302.2	2,158.1	144.07	15.980	
6,215.9	6,039.8	6,066.3	6,066.3	28.1	121.3	130.88	127.6	1,680.4	2,302.2	2,158.2	143.99	15.988	
6,245.9	6,069.8	6,096.3	6,096.3	28.1	121.9	120.88	127.6	1,680.4	2,302.2	2,157.6	144.63	15.918	
6,250.0	6,073.9	6,100.4	6,100.4	28.1	122.0	30.88	127.6	1,680.4	2,302.2	2,157.1	145.11	15.865	
6,300.0	6,123.9	6,150.4	6,150.4	28.2	123.0	30.98	127.6	1,680.4	2,300.5	2,154.7	145.75	15.783	
6,350.0	6,173.6	6,200.1	6,200.1	28.2	124.0	31.25	127.6	1,680.4	2,295.7	2,149.9	145.83	15.743	
6,400.0	6,222.7	6,249.2	6,249.2	28.2	125.0	31.69	127.6	1,680.4	2,288.1	2,142.7	145.36	15.741	
6,450.0	6,271.2	6,297.7	6,297.7	28.2	126.0	32.31	127.6	1,680.4	2,277.5	2,133.1	144.35	15.777	
6,500.0	6,318.6	6,345.1	6,345.1	28.2	126.9	33.12	127.6	1,680.4	2,264.1	2,121.2	142.88	15.846	
6,550.0	6,364.9	6,391.4	6,391.4	28.2	127.9	34.14	127.6	1,680.4	2,247.9	2,106.9	140.99	15.943	
6,600.0	6,409.7	6,436.2	6,436.2	28.2	128.8	35.38	127.6	1,680.4	2,229.0	2,090.2	138.81	16.059	
6,650.0	6,452.8	6,479.3	6,479.3	28.2	129.6	36.87	127.6	1,680.4	2,207.7	2,071.2	136.46	16.178	
6,700.0	6,494.1	6,520.6	6,520.6	28.2	130.5	38.61	127.6	1,680.4	2,183.9	2,049.8	134.12	16.283	
6,750.0	6,533.3	6,559.8	6,559.8	28.2	131.3	40.64	127.6	1,680.4	2,157.9	2,025.9	132.01	16.346	
6,800.0	6,570.3	6,596.8	6,596.8	28.2	132.0	42.99	127.6	1,680.4	2,129.8	1,999.4	130.38	16.336	
6,850.0	6,604.8	6,631.3	6,631.3	28.2	132.7	45.68	127.6	1,680.4	2,099.8	1,970.4	129.48	16.218	
6,900.0	6,636.7	6,663.2	6,663.2	28.2	133.3	48.72	127.6	1,680.4	2,068.1	1,938.6	129.55	15.964	
6,950.0	6,665.8	6,692.3	6,692.3	28.2	133.9	52.14	127.6	1,680.4	2,034.9	1,904.2	130.78	15.561	
7,000.0	6,692.1	6,718.6	6,718.6	28.2	134.5	55.93	127.6	1,680.4	2,000.5	1,867.3	133.20	15.019	
7,050.0	6,715.3	6,741.8	6,741.8	28.2	134.9	60.08	127.6	1,680.4	1,964.9	1,828.2	136.69	14.375	
7,100.0	6,735.4	6,761.9	6,761.9	28.2	135.3	64.53	127.6	1,680.4	1,928.5	1,787.6	140.96	13.681	
7,150.0	6,752.2	6,778.7	6,778.7	28.3	135.7	69.22	127.6	1,680.4	1,891.5	1,746.0	145.58	12.993	
7,200.0	6,765.7	6,792.2	6,792.2	28.3	135.9	74.05	127.6	1,680.4	1,854.2	1,704.2	150.05	12.357	
7,250.0	6,775.8	6,802.3	6,802.3	28.4	136.1	78.90	127.6	1,680.4	1,816.7	1,662.8	153.96	11.800	
7,300.0	6,782.5	6,809.0	6,809.0	28.6	136.3	83.65	127.6	1,680.4	1,779.4	1,622.4	157.00	11.334	
7,350.0	6,785.7	6,812.2	6,812.2	28.8	136.3	88.19	127.6	1,680.4	1,742.4	1,583.4	159.07	10.954	
7,375.3	6,786.0	6,812.5	6,812.5	29.0	136.3	90.37	127.6	1,680.4	1,723.9	1,564.2	159.75	10.792	
7,400.0	6,785.8	6,812.3	6,812.3	29.1	136.3	90.36	127.6	1,680.4	1,706.0	1,545.8	160.19	10.650	
7,500.0	6,785.2	6,811.7	6,811.7	30.0	136.3	90.33	127.6	1,680.4	1,635.4	1,473.2	162.11	10.088	
7,600.0	6,784.6	6,811.1	6,811.1	31.2	136.3	90.31	127.6	1,680.4	1,567.9	1,403.7	164.17	9.551	
7,700.0	6,784.0	6,810.5	6,810.5	32.8	136.3	90.28	127.6	1,680.4	1,504.1	1,337.7	166.35	9.042	
7,800.0	6,783.4	6,809.9	6,809.9	34.7	136.3	90.25	127.6	1,680.4	1,444.3	1,275.7	168.62	8.566	
7,900.0	6,782.8	6,809.3	6,809.3	36.8	136.3	90.22	127.6	1,680.4	1,389.2	1,218.3	170.97	8.126	
8,000.0	6,782.2	6,808.7	6,808.7	39.1	136.3	90.19	127.6	1,680.4	1,339.3	1,166.0	173.38	7.725	
8,100.0	6,781.6	6,808.1	6,808.1	41.4	136.3	90.16	127.6	1,680.4	1,295.3	1,119.4	175.85	7.366	
8,200.0	6,780.9	6,807.4	6,807.4	43.8	136.2	90.13	127.6	1,680.4	1,257.6	1,079.3	178.35	7.051	
8,300.0	6,780.3	6,806.8	6,806.8	46.2	136.2	90.10	127.6	1,680.4	1,227.0	1,046.1	180.89	6.783	
8,400.0	6,779.7	6,806.2	6,806.2	48.7	136.2	90.07	127.6	1,680.4	1,203.9	1,020.5	183.46	6.562	
8,500.0	6,779.1	6,805.6	6,805.6	51.2	136.2	90.04	127.6	1,680.4	1,188.8	1,002.8	186.05	6.390	
8,600.0	6,778.5	6,805.0	6,805.0	53.8	136.2	90.01	127.6	1,680.4	1,182.0	993.4	188.67	6.265	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,630.6	6,778.3	6,804.8	6,804.8	54.6	136.2	90.00	127.6	1,680.4	1,181.6	992.2	189.47	6.236 CC, ES	
8,700.0	6,777.9	6,804.4	6,804.4	56.4	136.2	89.98	127.6	1,680.4	1,183.7	992.4	191.30	6.188	
8,800.0	6,777.3	6,803.8	6,803.8	59.0	136.2	89.95	127.6	1,680.4	1,193.7	999.8	193.95	6.155 SF	
8,900.0	6,776.7	6,803.2	6,803.2	61.6	136.2	89.92	127.6	1,680.4	1,212.0	1,015.4	196.61	6.164	
9,000.0	6,776.1	6,802.6	6,802.6	64.2	136.1	89.89	127.6	1,680.4	1,238.0	1,038.8	199.28	6.213	
9,100.0	6,775.5	6,802.0	6,802.0	66.9	136.1	89.86	127.6	1,680.4	1,271.5	1,069.5	201.96	6.296	
9,200.0	6,774.9	6,801.4	6,801.4	69.6	136.1	89.83	127.6	1,680.4	1,311.7	1,107.0	204.65	6.409	
9,300.0	6,774.2	6,800.7	6,800.7	72.2	136.1	89.80	127.6	1,680.4	1,358.1	1,150.7	207.35	6.550	
9,400.0	6,773.6	6,800.1	6,800.1	74.9	136.1	89.77	127.6	1,680.4	1,410.1	1,200.0	210.06	6.713	
9,500.0	6,773.0	6,799.5	6,799.5	77.6	136.1	89.74	127.6	1,680.4	1,467.0	1,254.3	212.77	6.895	
9,600.0	6,772.4	6,798.9	6,798.9	80.3	136.1	89.71	127.6	1,680.4	1,528.4	1,312.9	215.49	7.093	
9,700.0	6,771.8	6,798.3	6,798.3	83.0	136.1	89.68	127.6	1,680.4	1,593.7	1,375.5	218.21	7.303	
9,800.0	6,771.2	6,797.7	6,797.7	85.7	136.0	89.65	127.6	1,680.4	1,662.5	1,441.5	220.94	7.524	
9,900.0	6,770.6	6,797.1	6,797.1	88.5	136.0	89.63	127.6	1,680.4	1,734.3	1,510.6	223.67	7.754	
10,000.0	6,770.0	6,796.5	6,796.5	91.2	136.0	89.60	127.6	1,680.4	1,808.7	1,582.3	226.41	7.989	
10,100.0	6,769.4	6,795.9	6,795.9	93.9	136.0	89.57	127.6	1,680.4	1,885.6	1,656.4	229.15	8.229	
10,200.0	6,768.8	6,795.3	6,795.3	96.7	136.0	89.54	127.6	1,680.4	1,964.5	1,732.6	231.89	8.472	
10,300.0	6,768.2	6,794.7	6,794.7	99.4	136.0	89.51	127.6	1,680.4	2,045.3	1,810.6	234.64	8.717	
10,400.0	6,767.5	6,794.0	6,794.0	102.2	136.0	89.48	127.6	1,680.4	2,127.7	1,890.3	237.39	8.963	
10,500.0	6,766.9	6,793.4	6,793.4	104.9	136.0	89.45	127.6	1,680.4	2,211.5	1,971.4	240.14	9.210	
10,600.0	6,766.3	6,792.8	6,792.8	107.7	135.9	89.42	127.6	1,680.4	2,296.7	2,053.8	242.89	9.456	
10,700.0	6,765.7	6,792.2	6,792.2	110.4	135.9	89.39	127.6	1,680.4	2,383.0	2,137.4	245.64	9.701	
10,800.0	6,765.1	6,791.6	6,791.6	113.2	135.9	89.36	127.6	1,680.4	2,470.3	2,221.9	248.40	9.945	
10,900.0	6,764.5	6,791.0	6,791.0	115.9	135.9	89.33	127.6	1,680.4	2,558.6	2,307.4	251.16	10.187	
11,000.0	6,763.9	6,790.4	6,790.4	118.7	135.9	89.30	127.6	1,680.4	2,647.7	2,393.8	253.92	10.427	
11,100.0	6,763.3	6,789.8	6,789.8	121.5	135.9	89.27	127.6	1,680.4	2,737.5	2,480.9	256.68	10.665	
11,200.0	6,762.7	6,789.2	6,789.2	124.2	135.9	89.24	127.6	1,680.4	2,828.1	2,568.6	259.44	10.901	
11,300.0	6,762.1	6,788.6	6,788.6	127.0	135.9	89.21	127.6	1,680.4	2,919.2	2,657.0	262.20	11.133	
11,400.0	6,761.5	6,788.0	6,788.0	129.8	135.8	89.18	127.6	1,680.4	3,010.9	2,746.0	264.97	11.363	
11,500.0	6,760.9	6,787.4	6,787.4	132.5	135.8	89.16	127.6	1,680.4	3,103.2	2,835.4	267.74	11.590	
11,600.0	6,760.3	6,786.8	6,786.8	135.3	135.8	89.13	127.6	1,680.4	3,195.9	2,925.4	270.50	11.815	
11,700.0	6,759.6	6,786.1	6,786.1	138.1	135.8	89.10	127.6	1,680.4	3,289.0	3,015.7	273.27	12.036	
11,800.0	6,759.0	6,785.5	6,785.5	140.8	135.8	89.07	127.6	1,680.4	3,382.5	3,106.4	276.04	12.254	
11,900.0	6,758.4	6,784.9	6,784.9	143.6	135.8	89.04	127.6	1,680.4	3,476.4	3,197.6	278.81	12.469	
11,971.6	6,758.0	6,784.5	6,784.5	145.6	135.8	89.02	127.6	1,680.4	3,543.8	3,263.0	280.79	12.621	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	100.5	100.5	0.0	0.0	33.32	2,670.5	1,755.4	3,195.7				
100.0	100.0	200.5	200.5	0.1	1.2	33.32	2,670.5	1,755.4	3,195.7	3,194.5	1.25	2,549.076	
200.0	200.0	300.5	300.5	0.3	3.5	33.32	2,670.5	1,755.4	3,195.7	3,192.0	3.78	845.675	
300.0	300.0	400.5	400.5	0.5	5.5	33.32	2,670.5	1,755.4	3,195.7	3,189.7	6.08	525.380	
400.0	400.0	500.5	500.5	0.8	7.6	33.32	2,670.5	1,755.4	3,195.7	3,187.4	8.35	382.731	
500.0	500.0	600.5	600.5	1.0	9.6	33.32	2,670.5	1,755.4	3,195.7	3,185.1	10.60	301.380	
600.0	600.0	700.5	700.5	1.2	11.6	46.08	2,670.5	1,755.4	3,194.5	3,181.7	12.85	248.649	
700.0	699.8	800.3	800.3	1.5	13.6	46.20	2,670.5	1,755.4	3,190.9	3,175.8	15.08	211.622	
800.0	799.5	900.0	900.0	1.7	15.7	46.40	2,670.5	1,755.4	3,184.9	3,167.6	17.30	184.131	
900.0	898.7	999.2	999.2	1.9	17.7	46.68	2,670.5	1,755.4	3,176.5	3,156.9	19.50	162.853	
1,000.0	997.5	1,098.0	1,098.0	2.2	19.6	47.04	2,670.5	1,755.4	3,165.7	3,144.0	21.71	145.842	
1,100.0	1,095.6	1,196.1	1,196.1	2.6	21.6	47.49	2,670.5	1,755.4	3,152.6	3,128.7	23.90	131.886	
1,200.0	1,193.1	1,293.6	1,293.6	3.0	23.6	48.02	2,670.5	1,755.4	3,137.3	3,111.2	26.10	120.190	
1,289.7	1,279.7	1,380.2	1,380.2	3.4	25.3	48.56	2,670.5	1,755.4	3,121.6	3,093.6	28.08	111.177	
1,300.0	1,289.6	1,390.1	1,390.1	3.4	25.5	48.60	2,670.5	1,755.4	3,119.7	3,091.4	28.32	110.174	
1,400.0	1,385.9	1,486.4	1,486.4	3.9	27.5	48.97	2,670.5	1,755.4	3,101.4	3,070.8	30.64	101.233	
1,500.0	1,482.1	1,582.6	1,582.6	4.4	29.4	49.34	2,670.5	1,755.4	3,083.2	3,050.3	32.97	93.508	
1,600.0	1,578.3	1,678.8	1,678.8	4.9	31.3	49.72	2,670.5	1,755.4	3,065.2	3,029.9	35.32	86.776	
1,700.0	1,674.5	1,775.0	1,775.0	5.5	33.3	50.10	2,670.5	1,755.4	3,047.3	3,009.6	37.68	80.865	
1,800.0	1,770.8	1,871.3	1,871.3	6.0	35.2	50.49	2,670.5	1,755.4	3,029.5	2,989.4	40.05	75.636	
1,900.0	1,867.0	1,967.5	1,967.5	6.5	37.1	50.88	2,670.5	1,755.4	3,011.8	2,969.4	42.43	70.982	
2,000.0	1,963.2	2,063.7	2,063.7	7.1	39.1	51.27	2,670.5	1,755.4	2,994.3	2,949.5	44.82	66.813	
2,100.0	2,059.4	2,159.9	2,159.9	7.6	41.0	51.67	2,670.5	1,755.4	2,977.0	2,929.8	47.21	63.060	
2,200.0	2,155.7	2,256.2	2,256.2	8.1	43.0	52.08	2,670.5	1,755.4	2,959.8	2,910.2	49.61	59.665	
2,300.0	2,251.9	2,352.4	2,352.4	8.7	44.9	52.49	2,670.5	1,755.4	2,942.7	2,890.7	52.01	56.579	
2,400.0	2,348.1	2,448.6	2,448.6	9.2	46.8	52.90	2,670.5	1,755.4	2,925.8	2,871.4	54.42	53.763	
2,500.0	2,444.3	2,544.8	2,544.8	9.8	48.8	53.32	2,670.5	1,755.4	2,909.1	2,852.3	56.84	51.183	
2,600.0	2,540.6	2,641.1	2,641.1	10.3	50.7	53.74	2,670.5	1,755.4	2,892.5	2,833.3	59.26	48.812	
2,700.0	2,636.8	2,737.3	2,737.3	10.9	52.6	54.16	2,670.5	1,755.4	2,876.1	2,814.4	61.68	46.626	
2,800.0	2,733.0	2,833.5	2,833.5	11.4	54.6	54.59	2,670.5	1,755.4	2,859.8	2,795.7	64.12	44.604	
2,900.0	2,829.2	2,929.7	2,929.7	12.0	56.5	55.03	2,670.5	1,755.4	2,843.8	2,777.2	66.55	42.730	
3,000.0	2,925.5	3,026.0	3,026.0	12.5	58.4	55.47	2,670.5	1,755.4	2,827.8	2,758.8	68.99	40.987	
3,100.0	3,021.7	3,122.2	3,122.2	13.1	60.4	55.92	2,670.5	1,755.4	2,812.1	2,740.7	71.44	39.363	
3,200.0	3,117.9	3,218.4	3,218.4	13.6	62.3	56.37	2,670.5	1,755.4	2,796.5	2,722.6	73.89	37.847	
3,300.0	3,214.1	3,314.6	3,314.6	14.2	64.2	56.82	2,670.5	1,755.4	2,781.1	2,704.8	76.35	36.428	
3,400.0	3,310.4	3,410.9	3,410.9	14.7	66.2	57.28	2,670.5	1,755.4	2,765.9	2,687.1	78.81	35.098	
3,500.0	3,406.6	3,507.1	3,507.1	15.3	68.1	57.74	2,670.5	1,755.4	2,750.9	2,669.6	81.27	33.848	
3,600.0	3,502.8	3,603.3	3,603.3	15.8	70.1	58.21	2,670.5	1,755.4	2,736.1	2,652.3	83.74	32.673	
3,700.0	3,599.0	3,699.5	3,699.5	16.4	72.0	58.69	2,670.5	1,755.4	2,721.4	2,635.2	86.22	31.565	
3,800.0	3,695.3	3,795.8	3,795.8	17.0	73.9	59.16	2,670.5	1,755.4	2,707.0	2,618.3	88.69	30.520	
3,900.0	3,791.5	3,892.0	3,892.0	17.5	75.9	59.65	2,670.5	1,755.4	2,692.7	2,601.6	91.18	29.533	
4,000.0	3,887.7	3,988.2	3,988.2	18.1	77.8	60.14	2,670.5	1,755.4	2,678.7	2,585.0	93.67	28.599	
4,100.0	3,983.9	4,084.4	4,084.4	18.6	79.7	60.63	2,670.5	1,755.4	2,664.9	2,568.7	96.16	27.714	
4,200.0	4,080.2	4,180.7	4,180.7	19.2	81.7	61.13	2,670.5	1,755.4	2,651.2	2,552.6	98.65	26.874	
4,300.0	4,176.4	4,276.9	4,276.9	19.7	83.6	61.63	2,670.5	1,755.4	2,637.8	2,536.6	101.15	26.077	
4,400.0	4,272.6	4,373.1	4,373.1	20.3	85.5	62.14	2,670.5	1,755.4	2,624.6	2,520.9	103.66	25.320	
4,500.0	4,368.8	4,469.3	4,469.3	20.8	87.5	62.65	2,670.5	1,755.4	2,611.6	2,505.4	106.16	24.599	
4,600.0	4,465.1	4,565.6	4,565.6	21.4	89.4	63.17	2,670.5	1,755.4	2,598.8	2,490.1	108.68	23.913	
4,700.0	4,561.3	4,661.8	4,661.8	21.9	91.3	63.69	2,670.5	1,755.4	2,586.3	2,475.1	111.19	23.259	
4,800.0	4,657.5	4,758.0	4,758.0	22.5	93.3	64.21	2,670.5	1,755.4	2,573.9	2,460.2	113.71	22.636	
4,900.0	4,753.7	4,854.2	4,854.2	23.1	95.2	64.75	2,670.5	1,755.4	2,561.8	2,445.6	116.23	22.040	
5,000.0	4,850.0	4,950.5	4,950.5	23.6	97.1	65.28	2,670.5	1,755.4	2,550.0	2,431.2	118.76	21.472	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,046.7	5,046.7	24.2	99.1	65.82	2,670.5	1,755.4	2,538.3	2,417.1	121.29	20.928	
5,200.0	5,042.4	5,142.9	5,142.9	24.7	101.0	66.37	2,670.5	1,755.4	2,527.0	2,403.1	123.82	20.408	
5,300.0	5,138.6	5,239.1	5,239.1	25.3	102.9	66.92	2,670.5	1,755.4	2,515.8	2,389.5	126.36	19.910	
5,400.0	5,234.9	5,335.4	5,335.4	25.8	104.9	67.47	2,670.5	1,755.4	2,504.9	2,376.0	128.90	19.434	
5,426.2	5,260.1	5,360.6	5,360.6	26.0	105.4	67.62	2,670.5	1,755.4	2,502.1	2,372.5	129.56	19.312	
5,500.0	5,331.3	5,431.8	5,431.8	26.3	106.8	67.87	2,670.5	1,755.4	2,494.6	2,363.2	131.46	18.976	
5,600.0	5,428.7	5,529.2	5,529.2	26.7	108.8	68.19	2,670.5	1,755.4	2,485.8	2,351.9	133.94	18.560	
5,700.0	5,526.7	5,627.2	5,627.2	27.0	110.8	68.47	2,670.5	1,755.4	2,478.4	2,342.1	136.36	18.175	
5,800.0	5,625.4	5,725.9	5,725.9	27.3	112.7	68.70	2,670.5	1,755.4	2,472.4	2,333.7	138.74	17.821	
5,900.0	5,724.6	5,825.1	5,825.1	27.6	114.7	68.89	2,670.5	1,755.4	2,467.8	2,326.7	141.05	17.495	
6,000.0	5,824.1	5,924.6	5,924.6	27.8	116.7	69.02	2,670.5	1,755.4	2,464.5	2,321.1	143.32	17.196	
6,100.0	5,924.0	6,024.5	6,024.5	28.0	118.7	69.11	2,670.5	1,755.4	2,462.4	2,316.9	145.52	16.922	
6,200.0	6,023.9	6,124.4	6,124.4	28.1	120.8	69.15	2,670.5	1,755.4	2,461.6	2,313.9	147.65	16.672	
6,215.9	6,039.8	6,140.3	6,140.3	28.1	121.1	56.43	2,670.5	1,755.4	2,461.6	2,322.6	138.99	17.710	
6,245.9	6,069.8	6,170.3	6,170.3	28.1	121.7	56.43	2,670.5	1,755.4	2,461.6	2,321.9	139.64	17.628	
6,250.0	6,073.9	6,174.4	6,174.4	28.1	121.8	-33.57	2,670.5	1,755.4	2,461.5	2,312.8	148.71	16.553	
6,300.0	6,123.9	6,224.4	6,224.4	28.2	122.8	-33.68	2,670.5	1,755.4	2,459.9	2,310.4	149.48	16.456	
6,350.0	6,173.6	6,274.1	6,274.1	28.2	123.8	-33.95	2,670.5	1,755.4	2,455.3	2,305.6	149.70	16.401	
6,400.0	6,222.7	6,323.2	6,323.2	28.2	124.8	-34.41	2,670.5	1,755.4	2,447.8	2,298.4	149.38	16.387	
6,450.0	6,271.2	6,371.7	6,371.7	28.2	125.7	-35.05	2,670.5	1,755.4	2,437.5	2,289.0	148.54	16.410	
6,500.0	6,318.6	6,419.1	6,419.1	28.2	126.7	-35.89	2,670.5	1,755.4	2,424.5	2,277.3	147.25	16.466	
6,550.0	6,364.9	6,465.4	6,465.4	28.2	127.6	-36.93	2,670.5	1,755.4	2,408.8	2,263.2	145.57	16.547	
6,600.0	6,409.7	6,510.2	6,510.2	28.2	128.5	-38.20	2,670.5	1,755.4	2,390.6	2,246.9	143.63	16.644	
6,650.0	6,452.8	6,553.3	6,553.3	28.2	129.4	-39.71	2,670.5	1,755.4	2,369.9	2,228.3	141.54	16.743	
6,700.0	6,494.1	6,594.6	6,594.6	28.2	130.2	-41.47	2,670.5	1,755.4	2,346.8	2,207.3	139.48	16.825	
6,750.0	6,533.3	6,633.8	6,633.8	28.2	131.0	-43.51	2,670.5	1,755.4	2,321.6	2,184.0	137.65	16.866	
6,800.0	6,570.3	6,670.8	6,670.8	28.2	131.7	-45.85	2,670.5	1,755.4	2,294.5	2,158.2	136.27	16.837	
6,850.0	6,604.8	6,705.3	6,705.3	28.2	132.4	-48.51	2,670.5	1,755.4	2,265.5	2,129.9	135.55	16.713	
6,900.0	6,636.7	6,737.2	6,737.2	28.2	133.1	-51.49	2,670.5	1,755.4	2,234.8	2,099.1	135.68	16.471	
6,950.0	6,665.8	6,766.3	6,766.3	28.2	133.7	-54.80	2,670.5	1,755.4	2,202.7	2,066.0	136.78	16.105	
7,000.0	6,692.1	6,792.6	6,792.6	28.2	134.2	-58.44	2,670.5	1,755.4	2,169.5	2,030.6	138.84	15.625	
7,050.0	6,715.3	6,815.8	6,815.8	28.2	134.7	-62.37	2,670.5	1,755.4	2,135.2	1,993.4	141.75	15.062	
7,100.0	6,735.4	6,835.9	6,835.9	28.2	135.1	-66.55	2,670.5	1,755.4	2,100.1	1,954.9	145.24	14.459	
7,150.0	6,752.2	6,852.7	6,852.7	28.3	135.4	-70.91	2,670.5	1,755.4	2,064.5	1,915.5	148.94	13.861	
7,200.0	6,765.7	6,866.2	6,866.2	28.3	135.7	-75.37	2,670.5	1,755.4	2,028.5	1,876.1	152.46	13.305	
7,250.0	6,775.8	6,876.3	6,876.3	28.4	135.9	-79.82	2,670.5	1,755.4	1,992.5	1,837.1	155.46	12.817	
7,300.0	6,782.5	6,883.0	6,883.0	28.6	136.0	-84.17	2,670.5	1,755.4	1,956.6	1,798.9	157.69	12.408	
7,350.0	6,785.7	6,886.2	6,886.2	28.8	136.1	-88.34	2,670.5	1,755.4	1,921.1	1,762.0	159.06	12.078	
7,375.3	6,786.0	6,886.5	6,886.5	29.0	136.1	-90.34	2,670.5	1,755.4	1,903.4	1,743.9	159.43	11.938	
7,400.0	6,785.8	6,886.3	6,886.3	29.1	136.1	-90.34	2,670.5	1,755.4	1,886.2	1,726.3	159.88	11.797	
7,500.0	6,785.2	6,885.7	6,885.7	30.0	136.1	-90.31	2,670.5	1,755.4	1,818.4	1,656.6	161.80	11.239	
7,600.0	6,784.6	6,885.1	6,885.1	31.2	136.1	-90.28	2,670.5	1,755.4	1,753.7	1,589.8	163.86	10.702	
7,700.0	6,784.0	6,884.5	6,884.5	32.8	136.0	-90.26	2,670.5	1,755.4	1,692.4	1,526.4	166.05	10.192	
7,800.0	6,783.4	6,883.9	6,883.9	34.7	136.0	-90.23	2,670.5	1,755.4	1,635.0	1,466.6	168.33	9.713	
7,900.0	6,782.8	6,883.3	6,883.3	36.8	136.0	-90.21	2,670.5	1,755.4	1,581.8	1,411.1	170.68	9.267	
8,000.0	6,782.2	6,882.7	6,882.7	39.1	136.0	-90.18	2,670.5	1,755.4	1,533.3	1,360.2	173.10	8.858	
8,100.0	6,781.6	6,882.1	6,882.1	41.4	136.0	-90.16	2,670.5	1,755.4	1,489.9	1,314.3	175.56	8.486	
8,200.0	6,780.9	6,881.4	6,881.4	43.8	136.0	-90.13	2,670.5	1,755.4	1,452.1	1,274.0	178.07	8.155	
8,300.0	6,780.3	6,880.8	6,880.8	46.2	136.0	-90.10	2,670.5	1,755.4	1,420.4	1,239.8	180.62	7.864	
8,400.0	6,779.7	6,880.2	6,880.2	48.7	136.0	-90.08	2,670.5	1,755.4	1,395.1	1,211.9	183.19	7.616	
8,500.0	6,779.1	6,879.6	6,879.6	51.2	135.9	-90.05	2,670.5	1,755.4	1,376.7	1,190.9	185.79	7.410	
8,600.0	6,778.5	6,879.0	6,879.0	53.8	135.9	-90.03	2,670.5	1,755.4	1,365.3	1,176.9	188.40	7.247	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	6,777.9	6,878.4	6,878.4	56.4	135.9	-90.00	2,670.5	1,755.4	1,361.3	1,170.2	191.04	7.126	
8,705.6	6,777.9	6,878.4	6,878.4	56.5	135.9	-90.00	2,670.5	1,755.4	1,361.3	1,170.1	191.19	7.120 CC, ES	
8,800.0	6,777.3	6,877.8	6,877.8	59.0	135.9	-89.98	2,670.5	1,755.4	1,364.5	1,170.8	193.69	7.045	
8,900.0	6,776.7	6,877.2	6,877.2	61.6	135.9	-89.95	2,670.5	1,755.4	1,375.1	1,178.7	196.35	7.003	
9,000.0	6,776.1	6,876.6	6,876.6	64.2	135.9	-89.92	2,670.5	1,755.4	1,392.7	1,193.7	199.03	6.998 SF	
9,100.0	6,775.5	6,876.0	6,876.0	66.9	135.9	-89.90	2,670.5	1,755.4	1,417.2	1,215.5	201.72	7.026	
9,200.0	6,774.9	6,875.4	6,875.4	69.6	135.9	-89.87	2,670.5	1,755.4	1,448.2	1,243.8	204.41	7.085	
9,300.0	6,774.2	6,874.7	6,874.7	72.2	135.8	-89.85	2,670.5	1,755.4	1,485.4	1,278.2	207.11	7.172	
9,400.0	6,773.6	6,874.1	6,874.1	74.9	135.8	-89.82	2,670.5	1,755.4	1,528.1	1,318.3	209.82	7.283	
9,500.0	6,773.0	6,873.5	6,873.5	77.6	135.8	-89.80	2,670.5	1,755.4	1,576.1	1,363.5	212.54	7.415	
9,600.0	6,772.4	6,872.9	6,872.9	80.3	135.8	-89.77	2,670.5	1,755.4	1,628.8	1,413.5	215.26	7.567	
9,700.0	6,771.8	6,872.3	6,872.3	83.0	135.8	-89.75	2,670.5	1,755.4	1,685.7	1,467.8	217.99	7.733	
9,800.0	6,771.2	6,871.7	6,871.7	85.7	135.8	-89.72	2,670.5	1,755.4	1,746.6	1,525.9	220.72	7.913	
9,900.0	6,770.6	6,871.1	6,871.1	88.5	135.8	-89.69	2,670.5	1,755.4	1,810.9	1,587.5	223.45	8.104	
10,000.0	6,770.0	6,870.5	6,870.5	91.2	135.8	-89.67	2,670.5	1,755.4	1,878.4	1,652.2	226.19	8.304	
10,100.0	6,769.4	6,869.9	6,869.9	93.9	135.7	-89.64	2,670.5	1,755.4	1,948.6	1,719.7	228.94	8.512	
10,200.0	6,768.8	6,869.3	6,869.3	96.7	135.7	-89.62	2,670.5	1,755.4	2,021.4	1,789.7	231.68	8.725	
10,300.0	6,768.2	6,868.7	6,868.7	99.4	135.7	-89.59	2,670.5	1,755.4	2,096.4	1,862.0	234.43	8.943	
10,400.0	6,767.5	6,868.0	6,868.0	102.2	135.7	-89.57	2,670.5	1,755.4	2,173.4	1,936.3	237.18	9.164	
10,500.0	6,766.9	6,867.4	6,867.4	104.9	135.7	-89.54	2,670.5	1,755.4	2,252.3	2,012.3	239.93	9.387	
10,600.0	6,766.3	6,866.8	6,866.8	107.7	135.7	-89.52	2,670.5	1,755.4	2,332.7	2,090.0	242.69	9.612	
10,700.0	6,765.7	6,866.2	6,866.2	110.4	135.7	-89.49	2,670.5	1,755.4	2,414.6	2,169.2	245.45	9.838	
10,800.0	6,765.1	6,865.6	6,865.6	113.2	135.7	-89.46	2,670.5	1,755.4	2,497.9	2,249.6	248.21	10.064	
10,900.0	6,764.5	6,865.0	6,865.0	115.9	135.6	-89.44	2,670.5	1,755.4	2,582.3	2,331.3	250.97	10.289	
11,000.0	6,763.9	6,864.4	6,864.4	118.7	135.6	-89.41	2,670.5	1,755.4	2,667.8	2,414.0	253.73	10.514	
11,100.0	6,763.3	6,863.8	6,863.8	121.5	135.6	-89.39	2,670.5	1,755.4	2,754.2	2,497.7	256.50	10.738	
11,200.0	6,762.7	6,863.2	6,863.2	124.2	135.6	-89.36	2,670.5	1,755.4	2,841.6	2,582.3	259.26	10.960	
11,300.0	6,762.1	6,862.6	6,862.6	127.0	135.6	-89.34	2,670.5	1,755.4	2,929.8	2,667.7	262.03	11.181	
11,400.0	6,761.5	6,862.0	6,862.0	129.8	135.6	-89.31	2,670.5	1,755.4	3,018.7	2,753.9	264.80	11.400	
11,500.0	6,760.9	6,861.4	6,861.4	132.5	135.6	-89.29	2,670.5	1,755.4	3,108.3	2,840.7	267.57	11.617	
11,600.0	6,760.3	6,860.8	6,860.8	135.3	135.6	-89.26	2,670.5	1,755.4	3,198.5	2,928.1	270.34	11.831	
11,700.0	6,759.6	6,860.1	6,860.1	138.1	135.5	-89.23	2,670.5	1,755.4	3,289.2	3,016.1	273.11	12.044	
11,800.0	6,759.0	6,859.5	6,859.5	140.8	135.5	-89.21	2,670.5	1,755.4	3,380.5	3,104.6	275.88	12.253	
11,900.0	6,758.4	6,858.9	6,858.9	143.6	135.5	-89.18	2,670.5	1,755.4	3,472.3	3,193.6	278.66	12.461	
11,971.6	6,758.0	6,858.5	6,858.5	145.6	135.5	-89.17	2,670.5	1,755.4	3,538.2	3,257.6	280.64	12.608	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	114.5	114.5	0.0	0.0	47.31	2,863.7	3,104.0	4,223.2				
100.0	100.0	214.5	214.5	0.1	0.1	47.31	2,863.7	3,104.0	4,223.2	4,223.0	0.21	N/A	
200.0	200.0	314.5	314.5	0.3	0.3	47.31	2,863.7	3,104.0	4,223.2	4,222.5	0.66	6,396.351	
300.0	300.0	414.5	414.5	0.5	0.6	47.31	2,863.7	3,104.0	4,223.2	4,222.1	1.11	3,805.424	
400.0	400.0	514.5	514.5	0.8	0.8	47.31	2,863.7	3,104.0	4,223.2	4,221.6	1.56	2,708.365	
500.0	500.0	614.5	614.5	1.0	1.0	47.31	2,863.7	3,104.0	4,223.2	4,221.2	2.01	2,102.298	
600.0	600.0	714.5	714.5	1.2	1.2	60.06	2,863.7	3,104.0	4,222.3	4,219.9	2.46	1,717.471	
700.0	699.8	814.3	814.3	1.5	1.5	60.17	2,863.7	3,104.0	4,219.7	4,216.8	2.91	1,449.775	
800.0	799.5	914.0	914.0	1.7	1.7	60.35	2,863.7	3,104.0	4,215.4	4,212.0	3.37	1,250.219	
900.0	898.7	1,013.2	1,013.2	1.9	1.9	60.59	2,863.7	3,104.0	4,209.3	4,205.5	3.85	1,093.295	
1,000.0	997.5	1,112.0	1,112.0	2.2	2.1	60.91	2,863.7	3,104.0	4,201.6	4,197.3	4.35	964.848	
1,100.0	1,095.6	1,210.1	1,210.1	2.6	2.4	61.30	2,863.7	3,104.0	4,192.3	4,187.4	4.89	856.650	
1,200.0	1,193.1	1,307.6	1,307.6	3.0	2.6	61.76	2,863.7	3,104.0	4,181.3	4,175.9	5.47	763.731	
1,289.7	1,279.7	1,394.2	1,394.2	3.4	2.8	62.23	2,863.7	3,104.0	4,170.2	4,164.2	6.04	690.805	
1,300.0	1,289.6	1,404.1	1,404.1	3.4	2.8	62.26	2,863.7	3,104.0	4,168.9	4,162.8	6.10	682.944	
1,400.0	1,385.9	1,500.4	1,500.4	3.9	3.0	62.59	2,863.7	3,104.0	4,155.9	4,149.1	6.77	613.921	
1,500.0	1,482.1	1,596.6	1,596.6	4.4	3.2	62.91	2,863.7	3,104.0	4,143.0	4,135.6	7.45	556.000	
1,600.0	1,578.3	1,692.8	1,692.8	4.9	3.4	63.24	2,863.7	3,104.0	4,130.3	4,122.2	8.15	507.027	
1,700.0	1,674.5	1,789.0	1,789.0	5.5	3.7	63.56	2,863.7	3,104.0	4,117.8	4,108.9	8.85	465.255	
1,800.0	1,770.8	1,885.3	1,885.3	6.0	3.9	63.89	2,863.7	3,104.0	4,105.3	4,095.8	9.56	429.308	
1,900.0	1,867.0	1,981.5	1,981.5	6.5	4.1	64.23	2,863.7	3,104.0	4,093.1	4,082.8	10.28	398.111	
2,000.0	1,963.2	2,077.7	2,077.7	7.1	4.3	64.56	2,863.7	3,104.0	4,080.9	4,069.9	11.01	370.821	
2,100.0	2,059.4	2,173.9	2,173.9	7.6	4.5	64.90	2,863.7	3,104.0	4,068.9	4,057.2	11.73	346.774	
2,200.0	2,155.7	2,270.2	2,270.2	8.1	4.7	65.23	2,863.7	3,104.0	4,057.1	4,044.6	12.47	325.443	
2,300.0	2,251.9	2,366.4	2,366.4	8.7	5.0	65.57	2,863.7	3,104.0	4,045.4	4,032.2	13.20	306.406	
2,400.0	2,348.1	2,462.6	2,462.6	9.2	5.2	65.91	2,863.7	3,104.0	4,033.9	4,019.9	13.94	289.321	
2,500.0	2,444.3	2,558.8	2,558.8	9.8	5.4	66.26	2,863.7	3,104.0	4,022.5	4,007.8	14.69	273.910	
2,600.0	2,540.6	2,655.1	2,655.1	10.3	5.6	66.60	2,863.7	3,104.0	4,011.2	3,995.8	15.43	259.945	
2,700.0	2,636.8	2,751.3	2,751.3	10.9	5.8	66.95	2,863.7	3,104.0	4,000.2	3,984.0	16.18	247.236	
2,800.0	2,733.0	2,847.5	2,847.5	11.4	6.0	67.29	2,863.7	3,104.0	3,989.2	3,972.3	16.93	235.625	
2,900.0	2,829.2	2,943.7	2,943.7	12.0	6.2	67.64	2,863.7	3,104.0	3,978.4	3,960.8	17.68	224.978	
3,000.0	2,925.5	3,040.0	3,040.0	12.5	6.5	68.00	2,863.7	3,104.0	3,967.8	3,949.4	18.44	215.184	
3,100.0	3,021.7	3,136.2	3,136.2	13.1	6.7	68.35	2,863.7	3,104.0	3,957.4	3,938.2	19.20	206.145	
3,200.0	3,117.9	3,232.4	3,232.4	13.6	6.9	68.70	2,863.7	3,104.0	3,947.1	3,927.1	19.96	197.780	
3,300.0	3,214.1	3,328.6	3,328.6	14.2	7.1	69.06	2,863.7	3,104.0	3,936.9	3,916.2	20.72	190.019	
3,400.0	3,310.4	3,424.9	3,424.9	14.7	7.3	69.42	2,863.7	3,104.0	3,927.0	3,905.5	21.48	182.799	
3,500.0	3,406.6	3,521.1	3,521.1	15.3	7.5	69.78	2,863.7	3,104.0	3,917.1	3,894.9	22.25	176.068	
3,600.0	3,502.8	3,617.3	3,617.3	15.8	7.8	70.14	2,863.7	3,104.0	3,907.5	3,884.5	23.02	169.779	
3,700.0	3,599.0	3,713.5	3,713.5	16.4	8.0	70.51	2,863.7	3,104.0	3,898.0	3,874.2	23.78	163.891	
3,800.0	3,695.3	3,809.8	3,809.8	17.0	8.2	70.87	2,863.7	3,104.0	3,888.7	3,864.2	24.55	158.369	
3,900.0	3,791.5	3,906.0	3,906.0	17.5	8.4	71.24	2,863.7	3,104.0	3,879.6	3,854.2	25.33	153.179	
4,000.0	3,887.7	4,002.2	4,002.2	18.1	8.6	71.61	2,863.7	3,104.0	3,870.6	3,844.5	26.10	148.295	
4,100.0	3,983.9	4,098.4	4,098.4	18.6	8.8	71.98	2,863.7	3,104.0	3,861.8	3,834.9	26.88	143.690	
4,200.0	4,080.2	4,194.7	4,194.7	19.2	9.1	72.35	2,863.7	3,104.0	3,853.2	3,825.5	27.65	139.344	
4,300.0	4,176.4	4,290.9	4,290.9	19.7	9.3	72.72	2,863.7	3,104.0	3,844.7	3,816.3	28.43	135.234	
4,400.0	4,272.6	4,387.1	4,387.1	20.3	9.5	73.10	2,863.7	3,104.0	3,836.4	3,807.2	29.21	131.344	
4,500.0	4,368.8	4,483.3	4,483.3	20.8	9.7	73.47	2,863.7	3,104.0	3,828.3	3,798.3	29.99	127.656	
4,600.0	4,465.1	4,579.6	4,579.6	21.4	9.9	73.85	2,863.7	3,104.0	3,820.4	3,789.6	30.77	124.157	
4,700.0	4,561.3	4,675.8	4,675.8	21.9	10.1	74.23	2,863.7	3,104.0	3,812.6	3,781.1	31.55	120.833	
4,800.0	4,657.5	4,772.0	4,772.0	22.5	10.4	74.61	2,863.7	3,104.0	3,805.0	3,772.7	32.34	117.671	
4,900.0	4,753.7	4,868.2	4,868.2	23.1	10.6	74.99	2,863.7	3,104.0	3,797.6	3,764.5	33.12	114.661	
5,000.0	4,850.0	4,964.5	4,964.5	23.6	10.8	75.38	2,863.7	3,104.0	3,790.4	3,756.5	33.91	111.793	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,060.7	5,060.7	24.2	11.0	75.76	2,863.7	3,104.0	3,783.4	3,748.7	34.69	109.058	
5,200.0	5,042.4	5,156.9	5,156.9	24.7	11.2	76.15	2,863.7	3,104.0	3,776.6	3,741.1	35.48	106.446	
5,300.0	5,138.6	5,253.1	5,253.1	25.3	11.4	76.53	2,863.7	3,104.0	3,769.9	3,733.6	36.27	103.951	
5,400.0	5,234.9	5,349.4	5,349.4	25.8	11.7	76.92	2,863.7	3,104.0	3,763.4	3,726.4	37.05	101.565	
5,426.2	5,260.1	5,374.6	5,374.6	26.0	11.7	77.02	2,863.7	3,104.0	3,761.7	3,724.5	37.26	100.957	
5,500.0	5,331.3	5,445.8	5,445.8	26.3	11.9	77.21	2,863.7	3,104.0	3,757.3	3,719.5	37.78	99.445	
5,600.0	5,428.7	5,543.2	5,543.2	26.7	12.1	77.45	2,863.7	3,104.0	3,752.1	3,713.7	38.39	97.727	
5,700.0	5,526.7	5,641.2	5,641.2	27.0	12.3	77.65	2,863.7	3,104.0	3,747.8	3,708.9	38.96	96.189	
5,800.0	5,625.4	5,739.9	5,739.9	27.3	12.5	77.82	2,863.7	3,104.0	3,744.3	3,704.9	39.49	94.822	
5,900.0	5,724.6	5,839.1	5,839.1	27.6	12.8	77.96	2,863.7	3,104.0	3,741.6	3,701.7	39.97	93.614	
6,000.0	5,824.1	5,938.6	5,938.6	27.8	13.0	78.06	2,863.7	3,104.0	3,739.7	3,699.3	40.40	92.559	
6,100.0	5,924.0	6,038.5	6,038.5	28.0	13.2	78.12	2,863.7	3,104.0	3,738.5	3,697.7	40.79	91.649	
6,200.0	6,023.9	6,138.4	6,138.4	28.1	13.4	78.15	2,863.7	3,104.0	3,738.0	3,696.9	41.13	90.877	
6,215.9	6,039.8	6,154.3	6,154.3	28.1	13.5	65.43	2,863.7	3,104.0	3,738.0	3,707.9	30.11	124.161	
6,245.9	6,069.8	6,184.3	6,184.3	28.1	13.5	65.43	2,863.7	3,104.0	3,738.0	3,707.8	30.22	123.694	
6,250.0	6,073.9	6,188.4	6,188.4	28.1	13.5	-24.57	2,863.7	3,104.0	3,738.0	3,696.7	41.29	90.522	
6,300.0	6,123.9	6,238.4	6,238.4	28.2	13.7	-24.65	2,863.7	3,104.0	3,736.2	3,694.8	41.38	90.295	
6,350.0	6,173.6	6,288.1	6,288.1	28.2	13.8	-24.85	2,863.7	3,104.0	3,731.2	3,689.9	41.28	90.380	
6,400.0	6,222.7	6,337.2	6,337.2	28.2	13.9	-25.19	2,863.7	3,104.0	3,723.0	3,682.0	41.01	90.774	
6,450.0	6,271.2	6,385.7	6,385.7	28.2	14.0	-25.67	2,863.7	3,104.0	3,711.8	3,671.2	40.58	91.473	
6,500.0	6,318.6	6,433.1	6,433.1	28.2	14.1	-26.30	2,863.7	3,104.0	3,697.5	3,657.5	39.98	92.475	
6,550.0	6,364.9	6,479.4	6,479.4	28.2	14.2	-27.09	2,863.7	3,104.0	3,680.3	3,641.0	39.25	93.777	
6,600.0	6,409.7	6,524.2	6,524.2	28.2	14.3	-28.05	2,863.7	3,104.0	3,660.2	3,621.8	38.38	95.368	
6,650.0	6,452.8	6,567.3	6,567.3	28.2	14.4	-29.22	2,863.7	3,104.0	3,637.4	3,600.0	37.41	97.226	
6,700.0	6,494.1	6,608.6	6,608.6	28.2	14.5	-30.62	2,863.7	3,104.0	3,611.9	3,575.5	36.37	99.309	
6,750.0	6,533.3	6,647.8	6,647.8	28.2	14.6	-32.27	2,863.7	3,104.0	3,583.9	3,548.6	35.30	101.539	
6,800.0	6,570.3	6,684.8	6,684.8	28.2	14.7	-34.22	2,863.7	3,104.0	3,553.6	3,519.4	34.24	103.784	
6,850.0	6,604.8	6,719.3	6,719.3	28.2	14.7	-36.50	2,863.7	3,104.0	3,521.2	3,487.9	33.27	105.840	
6,900.0	6,636.7	6,751.2	6,751.2	28.2	14.8	-39.18	2,863.7	3,104.0	3,486.7	3,454.2	32.46	107.419	
6,950.0	6,665.8	6,780.3	6,780.3	28.2	14.9	-42.31	2,863.7	3,104.0	3,450.4	3,418.5	31.90	108.161	
7,000.0	6,692.1	6,806.6	6,806.6	28.2	14.9	-45.95	2,863.7	3,104.0	3,412.4	3,380.8	31.69	107.695	
7,050.0	6,715.3	6,829.8	6,829.8	28.2	15.0	-50.16	2,863.7	3,104.0	3,373.1	3,341.2	31.89	105.773	
7,100.0	6,735.4	6,849.9	6,849.9	28.2	15.0	-55.00	2,863.7	3,104.0	3,332.5	3,300.0	32.54	102.419	
7,150.0	6,752.2	6,866.7	6,866.7	28.3	15.1	-60.47	2,863.7	3,104.0	3,291.0	3,257.4	33.58	97.993	
7,200.0	6,765.7	6,880.2	6,880.2	28.3	15.1	-66.55	2,863.7	3,104.0	3,248.6	3,213.7	34.89	93.110	
7,250.0	6,775.8	6,890.3	6,890.3	28.4	15.1	-73.14	2,863.7	3,104.0	3,205.7	3,169.5	36.25	88.434	
7,300.0	6,782.5	6,897.0	6,897.0	28.6	15.1	-80.07	2,863.7	3,104.0	3,162.5	3,125.0	37.43	84.488	
7,350.0	6,785.7	6,900.2	6,900.2	28.8	15.1	-87.10	2,863.7	3,104.0	3,119.1	3,080.9	38.24	81.560	
7,375.3	6,786.0	6,900.5	6,900.5	29.0	15.1	-90.60	2,863.7	3,104.0	3,097.3	3,058.8	38.48	80.493	
7,400.0	6,785.8	6,900.3	6,900.3	29.1	15.1	-90.60	2,863.7	3,104.0	3,075.9	3,037.0	38.93	79.017	
7,500.0	6,785.2	6,899.7	6,899.7	30.0	15.1	-90.57	2,863.7	3,104.0	2,990.0	2,949.2	40.85	73.186	
7,600.0	6,784.6	6,899.1	6,899.1	31.2	15.1	-90.55	2,863.7	3,104.0	2,905.1	2,862.1	42.93	67.665	
7,700.0	6,784.0	6,898.5	6,898.5	32.8	15.1	-90.53	2,863.7	3,104.0	2,821.1	2,776.0	45.13	62.515	
7,800.0	6,783.4	6,897.9	6,897.9	34.7	15.1	-90.51	2,863.7	3,104.0	2,738.2	2,690.8	47.42	57.749	
7,900.0	6,782.8	6,897.3	6,897.3	36.8	15.1	-90.48	2,863.7	3,104.0	2,656.5	2,606.7	49.78	53.363	
8,000.0	6,782.2	6,896.7	6,896.7	39.1	15.1	-90.46	2,863.7	3,104.0	2,576.1	2,523.8	52.21	49.341	
8,100.0	6,781.6	6,896.1	6,896.1	41.4	15.1	-90.44	2,863.7	3,104.0	2,497.0	2,442.4	54.69	45.660	
8,200.0	6,780.9	6,895.4	6,895.4	43.8	15.1	-90.42	2,863.7	3,104.0	2,419.6	2,362.4	57.21	42.295	
8,300.0	6,780.3	6,894.8	6,894.8	46.2	15.1	-90.39	2,863.7	3,104.0	2,343.8	2,284.1	59.76	39.220	
8,400.0	6,779.7	6,894.2	6,894.2	48.7	15.1	-90.37	2,863.7	3,104.0	2,270.0	2,207.6	62.34	36.410	
8,500.0	6,779.1	6,893.6	6,893.6	51.2	15.1	-90.35	2,863.7	3,104.0	2,198.2	2,133.2	64.95	33.843	
8,600.0	6,778.5	6,893.0	6,893.0	53.8	15.1	-90.33	2,863.7	3,104.0	2,128.6	2,061.0	67.58	31.498	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT ROGER 1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,777.9	6,892.4	6,892.4	56.4	15.1	-90.30	2,863.7	3,104.0	2,061.6	1,991.4	70.23	29.356	
8,800.0	6,777.3	6,891.8	6,891.8	59.0	15.1	-90.28	2,863.7	3,104.0	1,997.3	1,924.5	72.89	27.403	
8,900.0	6,776.7	6,891.2	6,891.2	61.6	15.1	-90.26	2,863.7	3,104.0	1,936.1	1,860.6	75.56	25.622	
9,000.0	6,776.1	6,890.6	6,890.6	64.2	15.1	-90.24	2,863.7	3,104.0	1,878.2	1,800.0	78.25	24.003	
9,100.0	6,775.5	6,890.0	6,890.0	66.9	15.1	-90.21	2,863.7	3,104.0	1,824.0	1,743.0	80.95	22.533	
9,200.0	6,774.9	6,889.4	6,889.4	69.6	15.1	-90.19	2,863.7	3,104.0	1,773.7	1,690.1	83.65	21.203	
9,300.0	6,774.2	6,888.7	6,888.7	72.2	15.1	-90.17	2,863.7	3,104.0	1,727.8	1,641.4	86.37	20.005	
9,400.0	6,773.6	6,888.1	6,888.1	74.9	15.1	-90.15	2,863.7	3,104.0	1,686.5	1,597.4	89.09	18.931	
9,500.0	6,773.0	6,887.5	6,887.5	77.6	15.1	-90.12	2,863.7	3,104.0	1,650.3	1,558.5	91.81	17.974	
9,600.0	6,772.4	6,886.9	6,886.9	80.3	15.1	-90.10	2,863.7	3,104.0	1,619.5	1,524.9	94.55	17.129	
9,700.0	6,771.8	6,886.3	6,886.3	83.0	15.1	-90.08	2,863.7	3,104.0	1,594.3	1,497.0	97.29	16.388	
9,800.0	6,771.2	6,885.7	6,885.7	85.7	15.1	-90.06	2,863.7	3,104.0	1,575.1	1,475.1	100.03	15.747	
9,900.0	6,770.6	6,885.1	6,885.1	88.5	15.1	-90.03	2,863.7	3,104.0	1,562.1	1,459.3	102.77	15.199	
10,000.0	6,770.0	6,884.5	6,884.5	91.2	15.1	-90.01	2,863.7	3,104.0	1,555.4	1,449.9	105.53	14.740	
10,054.2	6,769.7	6,884.2	6,884.2	92.7	15.1	-90.00	2,863.7	3,104.0	1,554.5	1,447.4	107.02	14.525 CC	
10,100.0	6,769.4	6,883.9	6,883.9	93.9	15.1	-89.99	2,863.7	3,104.0	1,555.1	1,446.9	108.28	14.362 ES	
10,200.0	6,768.8	6,883.3	6,883.3	96.7	15.1	-89.97	2,863.7	3,104.0	1,561.3	1,450.3	111.04	14.061	
10,300.0	6,768.2	6,882.7	6,882.7	99.4	15.1	-89.94	2,863.7	3,104.0	1,573.8	1,460.0	113.80	13.830	
10,400.0	6,767.5	6,882.0	6,882.0	102.2	15.1	-89.92	2,863.7	3,104.0	1,592.5	1,475.9	116.56	13.662	
10,500.0	6,766.9	6,881.4	6,881.4	104.9	15.1	-89.90	2,863.7	3,104.0	1,617.1	1,497.8	119.32	13.552	
10,600.0	6,766.3	6,880.8	6,880.8	107.7	15.1	-89.88	2,863.7	3,104.0	1,647.5	1,525.4	122.09	13.494	
10,700.0	6,765.7	6,880.2	6,880.2	110.4	15.1	-89.86	2,863.7	3,104.0	1,683.3	1,558.4	124.86	13.481 SF	
10,800.0	6,765.1	6,879.6	6,879.6	113.2	15.1	-89.83	2,863.7	3,104.0	1,724.1	1,596.5	127.63	13.508	
10,900.0	6,764.5	6,879.0	6,879.0	115.9	15.1	-89.81	2,863.7	3,104.0	1,769.7	1,639.2	130.41	13.570	
11,000.0	6,763.9	6,878.4	6,878.4	118.7	15.1	-89.79	2,863.7	3,104.0	1,819.6	1,686.4	133.18	13.662	
11,100.0	6,763.3	6,877.8	6,877.8	121.5	15.1	-89.77	2,863.7	3,104.0	1,873.5	1,737.5	135.96	13.780	
11,200.0	6,762.7	6,877.2	6,877.2	124.2	15.1	-89.74	2,863.7	3,104.0	1,931.1	1,792.4	138.74	13.919	
11,300.0	6,762.1	6,876.6	6,876.6	127.0	15.1	-89.72	2,863.7	3,104.0	1,992.0	1,850.5	141.51	14.077	
11,400.0	6,761.5	6,876.0	6,876.0	129.8	15.1	-89.70	2,863.7	3,104.0	2,056.1	1,911.8	144.29	14.249	
11,500.0	6,760.9	6,875.4	6,875.4	132.5	15.1	-89.68	2,863.7	3,104.0	2,122.9	1,975.8	147.08	14.434	
11,600.0	6,760.3	6,874.8	6,874.8	135.3	15.1	-89.65	2,863.7	3,104.0	2,192.2	2,042.3	149.86	14.628	
11,700.0	6,759.6	6,874.1	6,874.1	138.1	15.1	-89.63	2,863.7	3,104.0	2,263.8	2,111.2	152.64	14.831	
11,800.0	6,759.0	6,873.5	6,873.5	140.8	15.1	-89.61	2,863.7	3,104.0	2,337.5	2,182.1	155.43	15.039	
11,900.0	6,758.4	6,872.9	6,872.9	143.6	15.1	-89.59	2,863.7	3,104.0	2,413.1	2,254.9	158.21	15.252	
11,971.6	6,758.0	6,872.5	6,872.5	145.6	15.1	-89.57	2,863.7	3,104.0	2,468.3	2,308.1	160.21	15.407	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-30.7	30.7					
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-30.7	30.7	30.5	0.19	157.664		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-30.7	30.7	30.0	0.64	47.602		
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-30.7	30.7	29.6	1.09	28.033 CC		
400.0	400.0	399.8	399.8	0.8	0.8	-86.81	1.7	-30.9	30.9	29.4	1.54	20.060 ES		
500.0	500.0	499.4	499.2	1.0	1.0	-77.73	6.9	-31.6	32.3	30.3	2.00	16.202		
600.0	600.0	598.6	598.1	1.2	1.2	-54.27	15.4	-32.8	35.2	32.8	2.46	14.326		
700.0	699.8	697.7	696.4	1.5	1.5	-45.15	27.3	-34.4	38.9	35.9	2.93	13.254		
800.0	799.5	796.4	793.9	1.7	1.8	-37.49	42.5	-36.5	43.1	39.7	3.42	12.608		
900.0	898.7	895.0	890.7	1.9	2.2	-31.04	61.0	-39.0	47.8	43.9	3.92	12.204		
1,000.0	997.5	993.3	986.5	2.2	2.6	-25.55	82.7	-42.0	52.8	48.4	4.42	11.947		
1,100.0	1,095.6	1,091.4	1,081.3	2.6	3.0	-20.82	107.6	-45.4	58.0	53.1	4.93	11.782		
1,200.0	1,193.1	1,189.2	1,175.0	3.0	3.6	-16.68	135.6	-49.3	63.5	58.0	5.44	11.673		
1,289.7	1,279.7	1,276.8	1,257.9	3.4	4.1	-13.36	163.4	-53.1	68.4	62.5	5.90	11.604		
1,300.0	1,289.6	1,286.8	1,267.4	3.4	4.1	-13.00	166.7	-53.5	69.0	63.1	5.95	11.596		
1,400.0	1,385.9	1,384.1	1,358.4	3.9	4.8	-9.46	200.8	-58.2	76.7	70.2	6.49	11.814		
1,500.0	1,482.1	1,482.2	1,449.1	4.4	5.5	-6.18	237.8	-63.3	87.5	80.4	7.04	12.418		
1,600.0	1,578.3	1,581.5	1,540.8	4.9	6.2	-3.56	275.5	-68.4	98.8	91.2	7.61	12.977		
1,700.0	1,674.5	1,680.7	1,632.5	5.5	6.9	-1.48	313.2	-73.6	110.3	102.1	8.19	13.456		
1,800.0	1,770.8	1,780.0	1,724.2	6.0	7.6	0.20	350.9	-78.8	121.9	113.1	8.79	13.863		
1,900.0	1,867.0	1,879.3	1,815.9	6.5	8.3	1.59	388.6	-83.9	133.5	124.1	9.40	14.210		
2,000.0	1,963.2	1,978.5	1,907.5	7.1	9.1	2.76	426.3	-89.1	145.3	135.3	10.02	14.506		
2,100.0	2,059.4	2,077.8	1,999.2	7.6	9.8	3.75	464.0	-94.3	157.1	146.4	10.64	14.760		
2,200.0	2,155.7	2,177.1	2,090.9	8.1	10.6	4.60	501.7	-99.5	168.9	157.6	11.28	14.980		
2,300.0	2,251.9	2,276.3	2,182.6	8.7	11.3	5.34	539.5	-104.6	180.8	168.9	11.92	15.171		
2,400.0	2,348.1	2,375.6	2,274.3	9.2	12.0	5.99	577.2	-109.8	192.7	180.1	12.56	15.337		
2,500.0	2,444.3	2,474.9	2,365.9	9.8	12.8	6.57	614.9	-115.0	204.6	191.4	13.21	15.483		
2,600.0	2,540.6	2,574.2	2,457.6	10.3	13.5	7.08	652.6	-120.1	216.5	202.7	13.87	15.612		
2,700.0	2,636.8	2,673.4	2,549.3	10.9	14.3	7.54	690.3	-125.3	228.5	213.9	14.53	15.727		
2,800.0	2,733.0	2,772.7	2,641.0	11.4	15.0	7.95	728.0	-130.5	240.4	225.2	15.19	15.828		
2,900.0	2,829.2	2,872.0	2,732.7	12.0	15.7	8.32	765.7	-135.6	252.4	236.5	15.85	15.920		
3,000.0	2,925.5	2,971.2	2,824.4	12.5	16.5	8.66	803.4	-140.8	264.4	247.9	16.52	16.002		
3,100.0	3,021.7	3,070.5	2,916.0	13.1	17.2	8.97	841.1	-146.0	276.4	259.2	17.19	16.076		
3,200.0	3,117.9	3,169.8	3,007.7	13.6	18.0	9.26	878.8	-151.2	288.4	270.5	17.86	16.143		
3,300.0	3,214.1	3,269.0	3,099.4	14.2	18.7	9.52	916.6	-156.3	300.4	281.8	18.54	16.204		
3,400.0	3,310.4	3,368.3	3,191.1	14.7	19.5	9.76	954.3	-161.5	312.4	293.2	19.21	16.260		
3,500.0	3,406.6	3,467.6	3,282.8	15.3	20.2	9.98	992.0	-166.7	324.4	304.5	19.89	16.311		
3,600.0	3,502.8	3,566.8	3,374.4	15.8	21.0	10.19	1,029.7	-171.8	336.4	315.9	20.57	16.358		
3,700.0	3,599.0	3,666.1	3,466.1	16.4	21.7	10.38	1,067.4	-177.0	348.4	327.2	21.25	16.401		
3,800.0	3,695.3	3,765.4	3,557.8	17.0	22.5	10.56	1,105.1	-182.2	360.5	338.5	21.93	16.441		
3,900.0	3,791.5	3,864.6	3,649.5	17.5	23.2	10.73	1,142.8	-187.3	372.5	349.9	22.61	16.477		
4,000.0	3,887.7	3,963.9	3,741.2	18.1	24.0	10.89	1,180.5	-192.5	384.5	361.2	23.29	16.512		
4,100.0	3,983.9	4,063.2	3,832.8	18.6	24.7	11.04	1,218.2	-197.7	396.6	372.6	23.97	16.543		
4,200.0	4,080.2	4,162.4	3,924.5	19.2	25.5	11.18	1,255.9	-202.9	408.6	384.0	24.66	16.573		
4,300.0	4,176.4	4,261.7	4,016.2	19.7	26.2	11.31	1,293.6	-208.0	420.7	395.3	25.34	16.601		
4,400.0	4,272.6	4,361.0	4,107.9	20.3	27.0	11.43	1,331.4	-213.2	432.7	406.7	26.02	16.627		
4,500.0	4,368.8	4,460.2	4,199.6	20.8	27.7	11.55	1,369.1	-218.4	444.7	418.0	26.71	16.651		
4,600.0	4,465.1	4,559.5	4,291.2	21.4	28.5	11.66	1,406.8	-223.5	456.8	429.4	27.40	16.674		
4,700.0	4,561.3	4,658.8	4,382.9	21.9	29.2	11.77	1,444.5	-228.7	468.8	440.8	28.08	16.695		
4,800.0	4,657.5	4,758.0	4,474.6	22.5	30.0	11.87	1,482.2	-233.9	480.9	452.1	28.77	16.715		
4,900.0	4,753.7	4,857.3	4,566.3	23.1	30.7	11.97	1,519.9	-239.1	492.9	463.5	29.46	16.734		
5,000.0	4,850.0	4,956.6	4,658.0	23.6	31.4	12.06	1,557.6	-244.2	505.0	474.8	30.15	16.752		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,055.9	4,749.7	24.2	32.2	12.14	1,595.3	-249.4	517.0	486.2	30.83	16.769	
5,200.0	5,042.4	5,155.1	4,841.3	24.7	32.9	12.23	1,633.0	-254.6	529.1	497.6	31.52	16.785	
5,300.0	5,138.6	5,254.4	4,933.0	25.3	33.7	12.30	1,670.7	-259.7	541.2	508.9	32.21	16.800	
5,400.0	5,234.9	5,375.0	5,045.2	25.8	34.4	12.43	1,714.5	-265.7	551.5	518.5	32.94	16.743	
5,426.2	5,260.1	5,407.3	5,075.5	26.0	34.6	12.47	1,725.5	-267.2	553.5	520.4	33.13	16.708	
5,500.0	5,331.3	5,498.4	5,161.8	26.3	35.0	12.62	1,754.5	-271.2	558.5	524.9	33.60	16.623	
5,600.0	5,428.7	5,622.2	5,280.5	26.7	35.6	12.79	1,789.6	-276.0	564.5	530.4	34.14	16.537	
5,700.0	5,526.7	5,746.5	5,400.9	27.0	36.1	12.93	1,819.6	-280.2	569.7	535.1	34.60	16.465	
5,800.0	5,625.4	5,871.0	5,522.9	27.3	36.5	13.05	1,844.5	-283.6	574.0	539.0	34.98	16.408	
5,900.0	5,724.6	5,995.7	5,646.0	27.6	36.9	13.14	1,864.2	-286.3	577.3	542.0	35.28	16.364	
6,000.0	5,824.1	6,120.7	5,770.1	27.8	37.2	13.21	1,878.5	-288.2	579.8	544.3	35.49	16.335	
6,100.0	5,924.0	6,245.7	5,894.8	28.0	37.4	13.25	1,887.5	-289.5	581.3	545.7	35.62	16.319	
6,200.0	6,023.9	6,370.9	6,019.9	28.1	37.5	13.27	1,891.0	-289.9	581.9	546.2	35.67	16.314	
6,215.9	6,039.8	6,390.7	6,039.8	28.1	37.5	0.55	1,891.1	-290.0	581.9	517.1	64.78	8.982	
6,245.9	6,069.8	6,420.7	6,069.8	28.1	37.6	0.55	1,891.1	-290.0	581.9	517.1	64.83	8.976	
6,250.0	6,073.9	6,424.8	6,073.9	28.1	37.6	-89.45	1,891.1	-289.9	581.9	546.2	35.77	16.269	
6,300.0	6,123.9	6,474.4	6,123.5	28.2	37.6	-89.46	1,891.1	-287.9	581.9	546.0	35.90	16.210	
6,350.0	6,173.6	6,524.1	6,172.8	28.2	37.6	-89.46	1,891.1	-282.5	581.9	545.9	36.00	16.166	
6,400.0	6,222.7	6,573.7	6,221.6	28.2	37.6	-89.47	1,891.1	-273.7	581.9	545.9	36.07	16.135	
6,450.0	6,271.2	6,623.3	6,269.7	28.2	37.7	-89.48	1,891.1	-261.5	581.9	545.8	36.12	16.113	
6,500.0	6,318.6	6,672.9	6,316.8	28.2	37.7	-89.49	1,891.1	-246.0	581.9	545.8	36.15	16.098	
6,550.0	6,364.9	6,722.6	6,362.8	28.2	37.7	-89.50	1,891.1	-227.3	581.9	545.7	36.18	16.085	
6,600.0	6,409.7	6,772.2	6,407.4	28.2	37.7	-89.52	1,891.1	-205.4	581.9	545.7	36.21	16.070	
6,650.0	6,452.8	6,821.9	6,450.3	28.2	37.7	-89.54	1,891.1	-180.5	581.9	545.7	36.26	16.048	
6,700.0	6,494.1	6,871.6	6,491.5	28.2	37.7	-89.56	1,891.1	-152.7	581.9	545.6	36.35	16.010	
6,750.0	6,533.3	6,921.3	6,530.6	28.2	37.7	-89.58	1,891.1	-122.0	581.9	545.4	36.49	15.949	
6,800.0	6,570.3	6,971.0	6,567.5	28.2	37.7	-89.61	1,891.1	-88.8	581.9	545.2	36.69	15.858	
6,850.0	6,604.8	7,020.7	6,602.0	28.2	37.7	-89.64	1,891.1	-53.0	581.9	544.9	36.99	15.730	
6,900.0	6,636.7	7,070.5	6,634.0	28.2	37.7	-89.66	1,891.1	-14.9	581.9	544.5	37.40	15.557	
6,950.0	6,665.8	7,120.3	6,663.3	28.2	37.7	-89.70	1,891.1	25.4	581.9	544.0	37.94	15.338	
7,000.0	6,692.1	7,170.1	6,689.7	28.2	37.7	-89.73	1,891.1	67.6	581.9	543.3	38.62	15.068	
7,050.0	6,715.3	7,219.9	6,713.1	28.2	37.7	-89.76	1,891.1	111.5	581.9	542.5	39.44	14.752	
7,100.0	6,735.4	7,269.7	6,733.5	28.2	37.8	-89.80	1,891.1	157.0	581.9	541.5	40.43	14.394	
7,150.0	6,752.2	7,319.6	6,750.6	28.3	37.8	-89.83	1,891.1	203.8	581.9	540.3	41.56	14.000	
7,200.0	6,765.7	7,369.5	6,764.4	28.3	37.9	-89.87	1,891.1	251.8	581.9	539.1	42.85	13.580	
7,250.0	6,775.8	7,419.4	6,774.9	28.4	37.9	-89.91	1,891.1	300.6	581.9	537.6	44.27	13.143	
7,300.0	6,782.5	7,469.3	6,781.9	28.6	38.0	-89.94	1,891.1	350.0	581.9	536.1	45.82	12.699	
7,350.0	6,785.7	7,519.3	6,785.5	28.8	38.2	-89.98	1,891.1	399.8	581.9	534.4	47.47	12.258	
7,375.3	6,786.0	7,544.6	6,786.0	29.0	38.3	-90.00	1,891.1	425.1	581.9	533.6	48.34	12.039	
7,400.0	6,785.8	7,569.3	6,785.9	29.1	38.3	-90.01	1,891.1	449.8	581.9	532.7	49.21	11.824	
7,500.0	6,785.2	7,669.3	6,785.5	30.0	38.7	-90.02	1,891.1	549.8	581.9	528.9	52.99	10.981	
7,598.1	6,784.6	7,767.4	6,785.0	31.2	39.3	-90.04	1,891.1	647.9	581.9	524.9	56.98	10.213	
7,600.0	6,784.6	7,769.3	6,785.0	31.2	39.3	-90.04	1,891.1	649.8	581.9	524.8	57.05	10.199	
7,700.0	6,784.0	7,869.3	6,784.6	32.8	40.1	-90.06	1,891.1	749.8	581.9	520.5	61.36	9.483	
7,800.0	6,783.4	7,969.3	6,784.2	34.7	41.2	-90.08	1,891.1	849.8	581.9	516.0	65.87	8.835	
7,900.0	6,782.8	8,069.3	6,783.7	36.8	42.4	-90.09	1,891.1	949.8	581.9	511.4	70.53	8.250	
8,000.0	6,782.2	8,169.3	6,783.3	39.1	44.0	-90.11	1,891.1	1,049.8	581.9	506.6	75.32	7.725	
8,100.0	6,781.6	8,269.3	6,782.8	41.4	45.7	-90.13	1,891.1	1,149.8	581.9	501.7	80.23	7.253	
8,200.0	6,780.9	8,369.3	6,782.4	43.8	47.7	-90.14	1,891.1	1,249.8	581.9	496.7	85.21	6.829	
8,300.0	6,780.3	8,469.3	6,782.0	46.2	49.8	-90.16	1,891.1	1,349.8	581.9	491.6	90.28	6.446	
8,400.0	6,779.7	8,569.3	6,781.5	48.7	51.9	-90.18	1,891.1	1,449.8	581.9	486.5	95.40	6.099	
8,500.0	6,779.1	8,669.3	6,781.1	51.2	54.2	-90.20	1,891.1	1,549.8	581.9	481.3	100.58	5.785	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSAL #2												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,778.5	8,769.3	6,780.7	53.8	56.6	-90.21	1,891.1	1,649.8	581.9	476.1	105.80	5.500	
8,700.0	6,777.9	8,869.3	6,780.2	56.4	59.0	-90.23	1,891.1	1,749.8	581.9	470.8	111.06	5.239	
8,800.0	6,777.3	8,969.3	6,779.8	59.0	61.4	-90.25	1,891.1	1,849.8	581.9	465.5	116.36	5.001	
8,900.0	6,776.7	9,069.3	6,779.4	61.6	63.9	-90.26	1,891.1	1,949.8	581.9	460.2	121.68	4.782	
9,000.0	6,776.1	9,169.3	6,778.9	64.2	66.5	-90.28	1,891.1	2,049.8	581.9	454.9	127.03	4.581	
9,100.0	6,775.5	9,269.3	6,778.5	66.9	69.0	-90.30	1,891.1	2,149.8	581.9	449.5	132.40	4.395	
9,200.0	6,774.9	9,369.3	6,778.0	69.6	71.6	-90.31	1,891.1	2,249.8	581.9	444.1	137.79	4.223	
9,300.0	6,774.2	9,469.3	6,777.6	72.2	74.2	-90.33	1,891.1	2,349.8	581.9	438.7	143.19	4.064	
9,400.0	6,773.6	9,569.3	6,777.2	74.9	76.8	-90.35	1,891.1	2,449.8	581.9	433.3	148.62	3.916	
9,500.0	6,773.0	9,669.3	6,776.7	77.6	79.4	-90.37	1,891.1	2,549.8	581.9	427.9	154.05	3.777	
9,600.0	6,772.4	9,769.3	6,776.3	80.3	82.1	-90.38	1,891.1	2,649.8	581.9	422.4	159.50	3.648	
9,700.0	6,771.8	9,869.3	6,775.9	83.0	84.7	-90.40	1,891.1	2,749.8	581.9	417.0	164.96	3.528	
9,800.0	6,771.2	9,969.3	6,775.4	85.7	87.4	-90.42	1,891.1	2,849.8	581.9	411.5	170.43	3.414	
9,900.0	6,770.6	10,069.3	6,775.0	88.5	90.1	-90.43	1,891.1	2,949.8	581.9	406.0	175.91	3.308	
10,000.0	6,770.0	10,169.3	6,774.6	91.2	92.7	-90.45	1,891.1	3,049.8	581.9	400.5	181.40	3.208	
10,100.0	6,769.4	10,269.3	6,774.1	93.9	95.4	-90.47	1,891.1	3,149.8	581.9	395.0	186.89	3.114	
10,200.0	6,768.8	10,369.3	6,773.7	96.7	98.1	-90.48	1,891.1	3,249.8	581.9	389.5	192.39	3.025	
10,300.0	6,768.2	10,469.3	6,773.2	99.4	100.8	-90.50	1,891.1	3,349.8	581.9	384.0	197.90	2.940	
10,400.0	6,767.5	10,569.3	6,772.8	102.2	103.5	-90.52	1,891.1	3,449.8	581.9	378.5	203.42	2.861	
10,500.0	6,766.9	10,669.3	6,772.4	104.9	106.3	-90.54	1,891.1	3,549.8	581.9	373.0	208.93	2.785	
10,600.0	6,766.3	10,769.3	6,771.9	107.7	109.0	-90.55	1,891.1	3,649.8	581.9	367.5	214.46	2.713	
10,700.0	6,765.7	10,869.3	6,771.5	110.4	111.7	-90.57	1,891.1	3,749.8	581.9	361.9	219.99	2.645	
10,800.0	6,765.1	10,969.3	6,771.1	113.2	114.4	-90.59	1,891.1	3,849.8	581.9	356.4	225.52	2.580	
10,900.0	6,764.5	11,069.3	6,770.6	115.9	117.2	-90.60	1,891.1	3,949.8	581.9	350.9	231.06	2.519	
11,000.0	6,763.9	11,169.3	6,770.2	118.7	119.9	-90.62	1,891.1	4,049.8	581.9	345.3	236.60	2.460	
11,100.0	6,763.3	11,269.3	6,769.8	121.5	122.7	-90.64	1,891.1	4,149.8	581.9	339.8	242.14	2.403	
11,200.0	6,762.7	11,369.3	6,769.3	124.2	125.4	-90.65	1,891.1	4,249.8	581.9	334.2	247.69	2.349	
11,300.0	6,762.1	11,469.3	6,768.9	127.0	128.1	-90.67	1,891.1	4,349.8	581.9	328.7	253.24	2.298	
11,400.0	6,761.5	11,569.3	6,768.4	129.8	130.9	-90.69	1,891.1	4,449.8	581.9	323.1	258.79	2.249	
11,500.0	6,760.9	11,669.3	6,768.0	132.5	133.6	-90.70	1,891.1	4,549.8	581.9	317.6	264.35	2.201	
11,600.0	6,760.3	11,769.3	6,767.6	135.3	136.4	-90.72	1,891.1	4,649.8	581.9	312.0	269.91	2.156	
11,700.0	6,759.6	11,869.3	6,767.1	138.1	139.2	-90.74	1,891.1	4,749.8	581.9	306.5	275.47	2.113	
11,800.0	6,759.0	11,969.3	6,766.7	140.8	141.9	-90.75	1,891.1	4,849.8	581.9	300.9	281.03	2.071	
11,900.0	6,758.4	12,069.3	6,766.3	143.6	144.7	-90.77	1,891.1	4,949.8	581.9	295.4	286.59	2.031	
11,937.0	6,758.2	12,106.2	6,766.1	144.6	145.7	-90.78	1,891.1	4,986.7	581.9	293.3	288.65	2.016	
11,971.6	6,758.0	12,140.7	6,766.0	145.6	146.6	-90.79	1,891.1	5,021.2	581.9	291.4	290.57	2.003 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-13.9	13.9				
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-13.9	13.9	13.7	0.19	71.665	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-13.9	13.9	13.3	0.64	21.637	
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-13.9	13.9	12.8	1.09	12.742	
400.0	400.0	400.0	400.0	0.8	0.8	-90.00	0.0	-13.9	13.9	12.4	1.54	9.030 CC	
500.0	500.0	499.9	499.9	1.0	1.0	-83.13	1.7	-14.2	14.3	12.3	1.99	7.199	
600.0	600.0	599.6	599.4	1.2	1.2	-58.02	6.8	-15.1	15.6	13.2	2.44	6.403	
700.0	699.8	699.2	698.7	1.5	1.5	-47.58	15.4	-16.6	17.4	14.5	2.90	6.000	
800.0	799.5	798.7	797.4	1.7	1.7	-38.96	27.3	-18.7	19.5	16.1	3.37	5.791	
900.0	898.7	898.1	895.6	1.9	2.0	-31.81	42.5	-21.4	21.9	18.0	3.85	5.683	
1,000.0	997.5	997.3	993.0	2.2	2.4	-25.81	61.1	-24.7	24.4	20.1	4.34	5.632	
1,100.0	1,095.6	1,096.5	1,089.6	2.6	2.8	-20.69	83.0	-28.5	27.1	22.3	4.82	5.613	
1,200.0	1,193.1	1,195.5	1,185.3	3.0	3.2	-16.25	108.1	-33.0	29.8	24.5	5.32	5.613	
1,289.7	1,279.7	1,284.2	1,270.2	3.4	3.7	-12.71	133.3	-37.4	32.4	26.6	5.76	5.620	
1,300.0	1,289.6	1,294.4	1,279.9	3.4	3.7	-12.32	136.4	-37.9	32.7	26.9	5.82	5.623	
1,400.0	1,385.9	1,393.9	1,374.4	3.9	4.3	-8.53	167.4	-43.4	36.9	30.6	6.35	5.815	
1,500.0	1,482.1	1,493.8	1,469.1	4.4	4.9	-5.48	198.6	-48.9	41.4	34.5	6.89	6.016	
1,600.0	1,578.3	1,593.7	1,563.8	4.9	5.5	-3.04	229.9	-54.4	46.0	38.6	7.44	6.186	
1,700.0	1,674.5	1,693.6	1,658.5	5.5	6.1	-1.04	261.1	-59.9	50.7	42.7	8.01	6.332	
1,800.0	1,770.8	1,793.4	1,753.2	6.0	6.7	0.62	292.4	-65.4	55.5	46.9	8.59	6.456	
1,900.0	1,867.0	1,893.3	1,847.9	6.5	7.3	2.01	323.7	-70.9	60.2	51.0	9.18	6.561	
2,000.0	1,963.2	1,993.2	1,942.6	7.1	8.0	3.20	354.9	-76.4	65.0	55.2	9.78	6.649	
2,100.0	2,059.4	2,093.1	2,037.3	7.6	8.6	4.23	386.2	-81.9	69.8	59.5	10.39	6.724	
2,200.0	2,155.7	2,192.9	2,132.0	8.1	9.2	5.12	417.4	-87.4	74.7	63.7	11.00	6.788	
2,300.0	2,251.9	2,292.8	2,226.7	8.7	9.8	5.91	448.7	-92.9	79.6	67.9	11.63	6.843	
2,400.0	2,348.1	2,392.7	2,321.4	9.2	10.5	6.60	479.9	-98.4	84.4	72.2	12.25	6.890	
2,500.0	2,444.3	2,492.6	2,416.1	9.8	11.1	7.22	511.2	-103.9	89.3	76.4	12.89	6.931	
2,600.0	2,540.6	2,592.4	2,510.8	10.3	11.7	7.78	542.5	-109.4	94.2	80.7	13.52	6.967	
2,700.0	2,636.8	2,692.3	2,605.5	10.9	12.3	8.28	573.7	-114.9	99.1	84.9	14.16	6.997	
2,800.0	2,733.0	2,792.2	2,700.2	11.4	13.0	8.73	605.0	-120.4	104.0	89.2	14.81	7.025	
2,900.0	2,829.2	2,892.1	2,794.9	12.0	13.6	9.14	636.2	-125.9	108.9	93.5	15.45	7.048	
3,000.0	2,925.5	2,991.9	2,889.6	12.5	14.2	9.52	667.5	-131.4	113.8	97.7	16.10	7.069	
3,100.0	3,021.7	3,091.8	2,984.3	13.1	14.9	9.86	698.7	-136.9	118.8	102.0	16.76	7.088	
3,200.0	3,117.9	3,191.7	3,079.0	13.6	15.5	10.18	730.0	-142.4	123.7	106.3	17.41	7.105	
3,300.0	3,214.1	3,291.6	3,173.7	14.2	16.1	10.47	761.3	-147.9	128.6	110.6	18.07	7.120	
3,400.0	3,310.4	3,391.5	3,268.4	14.7	16.8	10.74	792.5	-153.4	133.6	114.8	18.73	7.133	
3,500.0	3,406.6	3,491.3	3,363.1	15.3	17.4	10.99	823.8	-158.9	138.5	119.1	19.39	7.145	
3,600.0	3,502.8	3,591.2	3,457.8	15.8	18.0	11.23	855.0	-164.4	143.4	123.4	20.05	7.156	
3,700.0	3,599.0	3,691.1	3,552.5	16.4	18.7	11.45	886.3	-169.9	148.4	127.7	20.71	7.166	
3,800.0	3,695.3	3,791.0	3,647.2	17.0	19.3	11.65	917.5	-175.4	153.3	132.0	21.37	7.174	
3,900.0	3,791.5	3,890.8	3,741.9	17.5	19.9	11.84	948.8	-180.9	158.3	136.2	22.04	7.183	
4,000.0	3,887.7	3,990.7	3,836.6	18.1	20.6	12.03	980.1	-186.4	163.2	140.5	22.70	7.190	
4,100.0	3,983.9	4,090.6	3,931.3	18.6	21.2	12.20	1,011.3	-191.9	168.2	144.8	23.37	7.197	
4,200.0	4,080.2	4,190.5	4,026.0	19.2	21.8	12.36	1,042.6	-197.4	173.1	149.1	24.04	7.203	
4,300.0	4,176.4	4,290.3	4,120.7	19.7	22.5	12.51	1,073.8	-202.9	178.1	153.4	24.70	7.209	
4,400.0	4,272.6	4,390.2	4,215.4	20.3	23.1	12.65	1,105.1	-208.4	183.0	157.7	25.37	7.214	
4,500.0	4,368.8	4,490.1	4,310.0	20.8	23.7	12.79	1,136.3	-213.9	188.0	161.9	26.04	7.219	
4,600.0	4,465.1	4,590.0	4,404.7	21.4	24.4	12.91	1,167.6	-219.4	192.9	166.2	26.71	7.223	
4,700.0	4,561.3	4,689.8	4,499.4	21.9	25.0	13.04	1,198.9	-224.9	197.9	170.5	27.38	7.227	
4,800.0	4,657.5	4,789.7	4,594.1	22.5	25.6	13.15	1,230.1	-230.4	202.9	174.8	28.05	7.231	
4,900.0	4,753.7	4,889.6	4,688.8	23.1	26.3	13.26	1,261.4	-235.9	207.8	179.1	28.72	7.235	
5,000.0	4,850.0	4,989.5	4,783.5	23.6	26.9	13.37	1,292.6	-241.4	212.8	183.4	29.40	7.238	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,089.3	4,878.2	24.2	27.5	13.47	1,323.9	-246.9	217.7	187.7	30.07	7.241	
5,200.0	5,042.4	5,189.2	4,972.9	24.7	28.2	13.56	1,355.1	-252.4	222.7	191.9	30.74	7.244	
5,300.0	5,138.6	5,289.1	5,067.6	25.3	28.8	13.66	1,386.4	-257.9	227.6	196.2	31.42	7.246	
5,400.0	5,234.9	5,389.0	5,162.3	25.8	29.4	13.74	1,417.7	-263.4	232.6	200.5	32.09	7.249	
5,426.2	5,260.1	5,415.2	5,187.2	26.0	29.6	13.77	1,425.9	-264.8	233.9	201.6	32.27	7.249	
5,500.0	5,331.3	5,491.8	5,260.0	26.3	30.1	13.81	1,449.6	-269.0	238.3	205.5	32.72	7.281	
5,600.0	5,428.7	5,600.7	5,364.2	26.7	30.6	13.82	1,480.4	-274.4	244.3	211.1	33.23	7.351	
5,700.0	5,526.7	5,709.7	5,469.8	27.0	31.0	13.80	1,507.3	-279.2	250.0	216.3	33.66	7.426	
5,800.0	5,625.4	5,819.0	5,576.6	27.3	31.4	13.77	1,530.3	-283.2	255.3	221.3	34.02	7.504	
5,900.0	5,724.6	5,928.6	5,684.4	27.6	31.7	13.70	1,549.3	-286.6	260.3	225.9	34.30	7.587	
6,000.0	5,824.1	6,038.4	5,793.1	27.8	32.0	13.62	1,564.3	-289.2	264.9	230.3	34.51	7.674	
6,100.0	5,924.0	6,148.3	5,902.5	28.0	32.3	13.52	1,575.1	-291.1	269.1	234.4	34.65	7.766	
6,200.0	6,023.9	6,258.5	6,012.5	28.1	32.4	13.39	1,581.8	-292.3	272.9	238.2	34.71	7.863	
6,215.9	6,039.8	6,276.0	6,030.0	28.1	32.5	0.65	1,582.5	-292.4	273.5	213.9	59.59	4.590	
6,245.9	6,069.8	6,309.1	6,063.0	28.1	32.5	0.61	1,583.5	-292.6	274.4	214.7	59.67	4.599	
6,250.0	6,073.9	6,313.7	6,067.6	28.1	32.5	-89.39	1,583.6	-292.6	274.5	239.7	34.81	7.886	
6,300.0	6,123.9	6,368.8	6,122.7	28.2	32.6	-89.83	1,584.4	-292.7	275.2	240.3	34.83	7.900	
6,350.0	6,173.6	6,419.7	6,173.6	28.2	32.6	-90.98	1,584.4	-292.7	275.2	240.6	34.66	7.941	
6,400.0	6,222.7	6,469.8	6,223.7	28.2	32.6	-92.34	1,584.4	-290.3	275.4	241.0	34.44	7.998	
6,450.0	6,271.2	6,520.4	6,273.9	28.2	32.7	-93.70	1,584.4	-284.4	275.8	241.6	34.22	8.059	
6,500.0	6,318.6	6,571.5	6,324.1	28.2	32.7	-95.05	1,584.4	-274.8	276.3	242.3	34.03	8.119	
6,550.0	6,364.9	6,623.1	6,373.9	28.2	32.7	-96.37	1,584.4	-261.5	276.9	243.1	33.87	8.176	
6,600.0	6,409.7	6,675.2	6,423.1	28.2	32.7	-97.66	1,584.4	-244.5	277.7	244.0	33.75	8.228	
6,650.0	6,452.8	6,727.8	6,471.4	28.2	32.7	-98.91	1,584.4	-223.8	278.6	244.9	33.67	8.275	
6,700.0	6,494.1	6,780.8	6,518.5	28.2	32.7	-100.12	1,584.4	-199.3	279.6	246.0	33.64	8.313	
6,750.0	6,533.3	6,834.4	6,564.1	28.2	32.7	-101.27	1,584.4	-171.1	280.7	247.0	33.65	8.341	
6,800.0	6,570.3	6,888.5	6,607.8	28.2	32.7	-102.36	1,584.4	-139.3	281.8	248.1	33.72	8.357	
6,850.0	6,604.8	6,943.1	6,649.3	28.2	32.7	-103.39	1,584.4	-104.0	283.0	249.1	33.86	8.357	
6,900.0	6,636.7	6,998.1	6,688.4	28.2	32.7	-104.35	1,584.4	-65.2	284.1	250.1	34.07	8.339	
6,950.0	6,665.8	7,053.5	6,724.6	28.2	32.7	-105.22	1,584.4	-23.3	285.3	250.9	34.38	8.298	
7,000.0	6,692.1	7,109.4	6,757.7	28.2	32.7	-106.02	1,584.4	21.7	286.4	251.6	34.80	8.230	
7,050.0	6,715.3	7,165.6	6,787.4	28.2	32.7	-106.73	1,584.4	69.5	287.4	252.1	35.34	8.134	
7,100.0	6,735.4	7,222.2	6,813.4	28.2	32.7	-107.35	1,584.4	119.7	288.4	252.4	36.00	8.010	
7,150.0	6,752.2	7,279.1	6,835.4	28.3	32.8	-107.88	1,584.4	172.1	289.2	252.4	36.82	7.854	
7,200.0	6,765.7	7,336.2	6,853.3	28.3	32.8	-108.31	1,584.4	226.3	289.9	252.1	37.79	7.671	
7,250.0	6,775.8	7,393.5	6,866.9	28.4	32.9	-108.65	1,584.4	282.0	290.5	251.5	38.92	7.463	
7,300.0	6,782.5	7,451.0	6,876.0	28.6	33.0	-108.88	1,584.4	338.8	290.9	250.7	40.19	7.237	
7,350.0	6,785.7	7,508.6	6,880.5	28.8	33.2	-109.02	1,584.4	396.2	291.1	249.5	41.61	6.996	
7,375.3	6,786.0	7,537.7	6,881.0	29.0	33.3	-109.05	1,584.4	425.3	291.1	248.8	42.37	6.871	
7,400.0	6,785.8	7,563.1	6,880.8	29.1	33.4	-109.04	1,584.4	450.6	291.1	247.9	43.24	6.733	
7,500.0	6,785.2	7,663.1	6,879.9	30.0	34.0	-108.99	1,584.4	550.6	291.0	244.1	46.91	6.205	
7,600.0	6,784.6	7,763.1	6,879.0	31.2	34.8	-108.94	1,584.4	650.6	291.0	240.1	50.86	5.720	
7,700.0	6,784.0	7,863.1	6,878.2	32.8	36.0	-108.89	1,584.4	750.6	290.9	235.8	55.05	5.284	
7,800.0	6,783.4	7,963.1	6,877.3	34.7	37.4	-108.84	1,584.4	850.6	290.8	231.4	59.43	4.893	
7,900.0	6,782.8	8,063.1	6,876.4	36.8	39.2	-108.79	1,584.4	950.6	290.7	226.7	63.95	4.545	
8,000.0	6,782.2	8,163.1	6,875.6	39.1	41.1	-108.74	1,584.4	1,050.6	290.6	222.0	68.60	4.236	
8,100.0	6,781.6	8,263.1	6,874.7	41.4	43.2	-108.70	1,584.4	1,150.6	290.5	217.2	73.35	3.961	
8,200.0	6,780.9	8,363.1	6,873.8	43.8	45.4	-108.65	1,584.4	1,250.6	290.4	212.3	78.18	3.715	
8,300.0	6,780.3	8,463.1	6,872.9	46.2	47.7	-108.60	1,584.4	1,350.6	290.4	207.3	83.08	3.495	
8,400.0	6,779.7	8,563.1	6,872.1	48.7	50.1	-108.55	1,584.4	1,450.6	290.3	202.2	88.03	3.297	
8,500.0	6,779.1	8,663.1	6,871.2	51.2	52.5	-108.50	1,584.4	1,550.6	290.2	197.2	93.04	3.119	
8,600.0	6,778.5	8,763.1	6,870.3	53.8	55.0	-108.45	1,584.4	1,650.6	290.1	192.0	98.08	2.958	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,777.9	8,863.1	6,869.5	56.4	57.5	-108.40	1,584.4	1,750.6	290.0	186.9	103.16	2.811	
8,800.0	6,777.3	8,963.1	6,868.6	59.0	60.1	-108.35	1,584.4	1,850.6	289.9	181.7	108.27	2.678	
8,900.0	6,776.7	9,063.1	6,867.7	61.6	62.6	-108.30	1,584.4	1,950.6	289.9	176.5	113.41	2.556	
9,000.0	6,776.1	9,163.1	6,866.8	64.2	65.2	-108.25	1,584.4	2,050.6	289.8	171.2	118.58	2.444	
9,100.0	6,775.5	9,263.1	6,866.0	66.9	67.8	-108.21	1,584.4	2,150.6	289.7	165.9	123.76	2.341	
9,200.0	6,774.9	9,363.1	6,865.1	69.6	70.5	-108.16	1,584.4	2,250.6	289.6	160.7	128.96	2.246	
9,300.0	6,774.2	9,463.1	6,864.2	72.2	73.1	-108.11	1,584.4	2,350.6	289.5	155.4	134.19	2.158	
9,400.0	6,773.6	9,563.1	6,863.4	74.9	75.8	-108.06	1,584.4	2,450.6	289.5	150.0	139.42	2.076	
9,500.0	6,773.0	9,663.1	6,862.5	77.6	78.4	-108.01	1,584.4	2,550.6	289.4	144.7	144.67	2.000	
9,600.0	6,772.4	9,763.1	6,861.6	80.3	81.1	-107.96	1,584.4	2,650.6	289.3	139.4	149.94	1.929	
9,700.0	6,771.8	9,863.1	6,860.7	83.0	83.8	-107.91	1,584.4	2,750.5	289.2	134.0	155.21	1.863	
9,800.0	6,771.2	9,963.1	6,859.9	85.7	86.5	-107.86	1,584.4	2,850.5	289.1	128.6	160.50	1.801	
9,900.0	6,770.6	10,063.1	6,859.0	88.5	89.2	-107.81	1,584.4	2,950.5	289.1	123.3	165.80	1.743	
10,000.0	6,770.0	10,163.1	6,858.1	91.2	91.9	-107.76	1,584.4	3,050.5	289.0	117.9	171.11	1.689	
10,100.0	6,769.4	10,263.1	6,857.3	93.9	94.6	-107.71	1,584.4	3,150.5	288.9	112.5	176.42	1.638	
10,200.0	6,768.8	10,363.1	6,856.4	96.7	97.3	-107.66	1,584.4	3,250.5	288.8	107.1	181.75	1.589	
10,300.0	6,768.2	10,463.1	6,855.5	99.4	100.1	-107.61	1,584.4	3,350.5	288.7	101.7	187.08	1.543	
10,400.0	6,767.5	10,563.1	6,854.7	102.2	102.8	-107.56	1,584.4	3,450.5	288.7	96.2	192.42	1.500	
10,500.0	6,766.9	10,663.1	6,853.8	104.9	105.5	-107.51	1,584.4	3,550.5	288.6	90.8	197.77	1.459 Level 3	
10,600.0	6,766.3	10,763.1	6,852.9	107.7	108.3	-107.46	1,584.4	3,650.5	288.5	85.4	203.12	1.420 Level 3	
10,700.0	6,765.7	10,863.1	6,852.0	110.4	111.0	-107.42	1,584.4	3,750.5	288.4	79.9	208.48	1.383 Level 3	
10,800.0	6,765.1	10,963.1	6,851.2	113.2	113.8	-107.37	1,584.4	3,850.5	288.3	74.5	213.85	1.348 Level 3	
10,900.0	6,764.5	11,063.1	6,850.3	115.9	116.5	-107.32	1,584.4	3,950.5	288.3	69.0	219.22	1.315 Level 3	
11,000.0	6,763.9	11,163.1	6,849.4	118.7	119.3	-107.27	1,584.4	4,050.5	288.2	63.6	224.60	1.283 Level 3	
11,100.0	6,763.3	11,263.1	6,848.6	121.5	122.0	-107.22	1,584.4	4,150.5	288.1	58.1	229.98	1.253 Level 3	
11,200.0	6,762.7	11,363.1	6,847.7	124.2	124.8	-107.17	1,584.4	4,250.5	288.0	52.7	235.37	1.224 Level 2	
11,300.0	6,762.1	11,463.1	6,846.8	127.0	127.5	-107.12	1,584.4	4,350.5	288.0	47.2	240.76	1.196 Level 2	
11,400.0	6,761.5	11,563.1	6,846.0	129.8	130.3	-107.07	1,584.4	4,450.5	287.9	41.7	246.16	1.169 Level 2	
11,500.0	6,760.9	11,663.0	6,845.1	132.5	133.0	-107.02	1,584.4	4,550.5	287.8	36.2	251.56	1.144 Level 2	
11,600.0	6,760.3	11,763.0	6,844.2	135.3	135.8	-106.97	1,584.4	4,650.5	287.7	30.8	256.97	1.120 Level 2	
11,700.0	6,759.6	11,863.0	6,843.4	138.1	138.6	-106.92	1,584.4	4,750.5	287.6	25.3	262.38	1.096 Level 2	
11,800.0	6,759.0	11,963.0	6,842.5	140.8	141.3	-106.87	1,584.4	4,850.5	287.6	19.8	267.80	1.074 Level 2	
11,900.0	6,758.4	12,063.0	6,841.6	143.6	144.1	-106.82	1,584.4	4,950.5	287.5	14.3	273.22	1.052 Level 2	
11,956.0	6,758.1	12,119.0	6,841.1	145.2	145.7	-106.79	1,584.4	5,006.4	287.5	11.2	276.25	1.041 Level 2	
11,971.6	6,758.0	12,133.9	6,841.0	145.6	146.1	-106.78	1,584.4	5,021.3	287.4	10.4	277.08	1.037 Level 2, ES, SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	30.7	30.7					
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	30.7	30.7	30.5	0.19	157.664		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	30.7	30.7	30.0	0.64	47.602		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	30.7	30.7	29.6	1.09	28.033		
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	30.7	30.7	29.1	1.54	19.866		
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	30.7	30.7	28.7	1.99	15.384 CC		
600.0	600.0	600.0	600.0	1.2	1.2	105.85	0.0	30.7	31.1	28.6	2.44	12.733 ES		
700.0	699.8	699.8	699.8	1.5	1.4	114.61	0.0	30.7	32.9	30.0	2.89	11.377		
800.0	799.5	800.4	800.4	1.7	1.7	124.99	1.6	30.0	36.1	32.8	3.35	10.786		
900.0	898.7	901.2	901.0	1.9	1.9	134.14	6.5	27.8	39.9	36.1	3.81	10.464		
1,000.0	997.5	1,002.2	1,001.6	2.2	2.1	142.28	14.6	24.3	44.1	39.8	4.28	10.305		
1,100.0	1,095.6	1,103.4	1,102.1	2.6	2.4	149.58	26.0	19.4	48.7	43.9	4.74	10.263		
1,200.0	1,193.1	1,204.8	1,202.2	3.0	2.7	156.19	40.7	13.0	53.7	48.5	5.21	10.310		
1,289.7	1,279.7	1,296.0	1,291.7	3.4	3.0	161.64	56.7	6.1	58.5	52.9	5.62	10.410		
1,300.0	1,289.6	1,306.3	1,301.8	3.4	3.0	162.23	58.6	5.2	59.0	53.4	5.67	10.417		
1,400.0	1,385.9	1,406.0	1,399.3	3.9	3.4	167.37	77.6	-3.0	64.8	58.6	6.16	10.518		
1,500.0	1,482.1	1,505.7	1,496.8	4.4	3.8	171.65	96.7	-11.3	70.9	64.3	6.66	10.646		
1,600.0	1,578.3	1,605.4	1,594.3	4.9	4.2	175.24	115.7	-19.5	77.4	70.2	7.18	10.778		
1,700.0	1,674.5	1,705.1	1,691.8	5.5	4.6	178.26	134.7	-27.8	84.2	76.5	7.72	10.897		
1,800.0	1,770.8	1,804.7	1,789.3	6.0	5.0	-179.18	153.7	-36.0	91.1	82.8	8.29	10.998		
1,900.0	1,867.0	1,904.4	1,886.8	6.5	5.4	-176.98	172.7	-44.3	98.2	89.4	8.86	11.081		
2,000.0	1,963.2	2,004.1	1,984.4	7.1	5.8	-175.08	191.7	-52.5	105.5	96.0	9.46	11.147		
2,100.0	2,059.4	2,103.8	2,081.9	7.6	6.2	-173.42	210.7	-60.8	112.8	102.7	10.07	11.199		
2,200.0	2,155.7	2,203.5	2,179.4	8.1	6.7	-171.97	229.7	-69.0	120.2	109.5	10.69	11.239		
2,300.0	2,251.9	2,303.2	2,276.9	8.7	7.1	-170.69	248.7	-77.3	127.7	116.3	11.33	11.269		
2,400.0	2,348.1	2,402.8	2,374.4	9.2	7.5	-169.55	267.7	-85.5	135.2	123.2	11.97	11.291		
2,500.0	2,444.3	2,502.5	2,471.9	9.8	8.0	-168.53	286.7	-93.8	142.8	130.2	12.63	11.307		
2,600.0	2,540.6	2,602.2	2,569.4	10.3	8.4	-167.61	305.7	-102.0	150.4	137.1	13.29	11.318		
2,700.0	2,636.8	2,701.9	2,666.9	10.9	8.8	-166.78	324.8	-110.2	158.1	144.1	13.96	11.325		
2,800.0	2,733.0	2,801.6	2,764.4	11.4	9.3	-166.03	343.8	-118.5	165.8	151.1	14.63	11.329		
2,900.0	2,829.2	2,901.2	2,861.9	12.0	9.7	-165.34	362.8	-126.7	173.5	158.2	15.31	11.331		
3,000.0	2,925.5	3,000.9	2,959.4	12.5	10.2	-164.72	381.8	-135.0	181.2	165.2	15.99	11.330		
3,100.0	3,021.7	3,100.6	3,056.9	13.1	10.6	-164.14	400.8	-143.2	189.0	172.3	16.68	11.328		
3,200.0	3,117.9	3,200.3	3,154.4	13.6	11.0	-163.61	419.8	-151.5	196.7	179.4	17.37	11.325		
3,300.0	3,214.1	3,300.0	3,251.9	14.2	11.5	-163.12	438.8	-159.7	204.5	186.5	18.06	11.322		
3,400.0	3,310.4	3,399.7	3,349.4	14.7	11.9	-162.67	457.8	-168.0	212.3	193.6	18.76	11.317		
3,500.0	3,406.6	3,499.3	3,446.9	15.3	12.4	-162.25	476.8	-176.2	220.1	200.7	19.46	11.312		
3,600.0	3,502.8	3,599.0	3,544.4	15.8	12.8	-161.85	495.8	-184.5	228.0	207.8	20.16	11.307		
3,700.0	3,599.0	3,698.7	3,641.9	16.4	13.2	-161.49	514.8	-192.7	235.8	214.9	20.87	11.301		
3,800.0	3,695.3	3,798.4	3,739.4	17.0	13.7	-161.15	533.8	-201.0	243.6	222.1	21.57	11.295		
3,900.0	3,791.5	3,898.1	3,836.9	17.5	14.1	-160.82	552.9	-209.2	251.5	229.2	22.28	11.290		
4,000.0	3,887.7	3,997.7	3,934.4	18.1	14.6	-160.52	571.9	-217.5	259.4	236.4	22.99	11.284		
4,100.0	3,983.9	4,097.4	4,031.9	18.6	15.0	-160.24	590.9	-225.7	267.2	243.5	23.70	11.278		
4,200.0	4,080.2	4,197.1	4,129.4	19.2	15.5	-159.97	609.9	-234.0	275.1	250.7	24.41	11.272		
4,300.0	4,176.4	4,296.8	4,227.0	19.7	15.9	-159.72	628.9	-242.2	283.0	257.9	25.12	11.266		
4,400.0	4,272.6	4,396.5	4,324.5	20.3	16.4	-159.48	647.9	-250.4	290.9	265.0	25.83	11.260		
4,500.0	4,368.8	4,496.1	4,422.0	20.8	16.8	-159.25	666.9	-258.7	298.7	272.2	26.55	11.254		
4,600.0	4,465.1	4,595.8	4,519.5	21.4	17.3	-159.04	685.9	-266.9	306.6	279.4	27.26	11.249		
4,700.0	4,561.3	4,693.7	4,615.2	21.9	17.7	-158.84	704.5	-275.0	314.6	286.6	27.96	11.252		
4,800.0	4,657.5	4,784.6	4,704.5	22.5	18.0	-158.86	720.0	-281.7	324.4	295.9	28.52	11.375		
4,900.0	4,753.7	4,874.9	4,793.7	23.1	18.2	-159.13	732.8	-287.3	336.9	307.9	29.00	11.619		
5,000.0	4,850.0	4,964.5	4,882.6	23.6	18.5	-159.62	742.9	-291.7	352.1	322.7	29.40	11.976		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,053.1	4,970.9	24.2	18.7	-160.28	750.5	-295.0	369.9	340.2	29.74	12.440	
5,200.0	5,042.4	5,140.7	5,058.3	24.7	18.8	-161.09	755.4	-297.1	390.5	360.5	30.02	13.006	
5,300.0	5,138.6	5,227.1	5,144.6	25.3	18.9	-161.99	757.9	-298.2	413.7	383.4	30.27	13.668	
5,400.0	5,234.9	5,317.3	5,234.9	25.8	19.1	-162.99	758.3	-298.3	439.4	408.9	30.49	14.409	
5,426.2	5,260.1	5,342.5	5,260.1	26.0	19.1	-163.26	758.3	-298.3	446.2	415.6	30.56	14.602	
5,500.0	5,331.3	5,413.8	5,331.3	26.3	19.2	-164.04	758.3	-298.3	464.6	433.9	30.74	15.113	
5,600.0	5,428.7	5,511.1	5,428.7	26.7	19.3	-164.90	758.3	-298.3	486.9	455.9	30.99	15.712	
5,700.0	5,526.7	5,609.2	5,526.7	27.0	19.4	-165.58	758.3	-298.3	505.9	474.6	31.24	16.193	
5,800.0	5,625.4	5,707.8	5,625.4	27.3	19.6	-166.10	758.3	-298.3	521.6	490.1	31.49	16.564	
5,900.0	5,724.6	5,807.0	5,724.6	27.6	19.7	-166.49	758.3	-298.3	534.0	502.2	31.73	16.831	
6,000.0	5,824.1	5,906.6	5,824.1	27.8	19.8	-166.76	758.3	-298.3	543.0	511.0	31.95	16.997	
6,100.0	5,924.0	6,006.4	5,924.0	28.0	20.0	-166.92	758.3	-298.3	548.6	516.5	32.15	17.066	
6,200.0	6,023.9	6,106.4	6,023.9	28.1	20.1	-166.98	758.3	-298.3	550.9	518.5	32.33	17.041	
6,215.9	6,039.8	6,122.3	6,039.8	28.1	20.1	-179.70	758.3	-298.3	550.9	504.1	46.83	11.765	
6,245.9	6,069.8	6,152.3	6,069.8	28.1	20.2	-179.70	758.3	-298.3	550.9	504.0	46.90	11.747	
6,250.0	6,073.9	6,156.4	6,073.9	28.1	20.2	90.30	758.3	-298.3	550.9	518.4	32.47	16.968	
6,300.0	6,123.9	6,206.6	6,124.1	28.2	20.3	90.30	758.3	-296.3	550.9	518.3	32.61	16.894	
6,350.0	6,173.6	6,256.8	6,174.0	28.2	20.3	90.29	758.3	-290.7	550.9	518.2	32.71	16.841	
6,400.0	6,222.7	6,307.0	6,223.3	28.2	20.3	90.29	758.3	-281.7	550.9	518.1	32.78	16.804	
6,450.0	6,271.2	6,357.2	6,271.9	28.2	20.3	90.28	758.3	-269.2	550.9	518.1	32.83	16.781	
6,500.0	6,318.6	6,407.4	6,319.6	28.2	20.3	90.28	758.3	-253.4	550.9	518.1	32.86	16.767	
6,550.0	6,364.9	6,457.6	6,365.9	28.2	20.3	90.27	758.3	-234.3	550.9	518.0	32.87	16.758	
6,600.0	6,409.7	6,507.7	6,410.9	28.2	20.3	90.26	758.3	-211.9	550.9	518.0	32.90	16.747	
6,650.0	6,452.8	6,557.9	6,454.1	28.2	20.3	90.25	758.3	-186.5	550.9	518.0	32.94	16.727	
6,700.0	6,494.1	6,608.1	6,495.5	28.2	20.3	90.24	758.3	-158.1	550.9	517.9	33.01	16.688	
6,750.0	6,533.3	6,658.2	6,534.7	28.2	20.2	90.23	758.3	-126.9	550.9	517.8	33.14	16.622	
6,800.0	6,570.3	6,708.4	6,571.7	28.2	20.2	90.21	758.3	-93.1	550.9	517.6	33.35	16.518	
6,850.0	6,604.8	6,758.5	6,606.2	28.2	20.1	90.20	758.3	-56.7	550.9	517.2	33.66	16.368	
6,900.0	6,636.7	6,808.6	6,638.1	28.2	20.1	90.18	758.3	-18.0	550.9	516.8	34.08	16.164	
6,950.0	6,665.8	6,858.8	6,667.2	28.2	20.1	90.16	758.3	22.8	550.9	516.3	34.65	15.901	
7,000.0	6,692.1	6,908.9	6,693.3	28.2	20.1	90.15	758.3	65.5	550.9	515.5	35.36	15.580	
7,050.0	6,715.3	6,958.9	6,716.4	28.2	20.1	90.13	758.3	109.9	550.9	514.7	36.24	15.203	
7,100.0	6,735.4	7,009.0	6,736.4	28.2	20.1	90.11	758.3	155.8	550.9	513.6	37.28	14.778	
7,150.0	6,752.2	7,059.1	6,753.0	28.3	20.1	90.09	758.3	203.0	550.9	512.4	38.48	14.315	
7,200.0	6,765.7	7,109.1	6,766.4	28.3	20.3	90.07	758.3	251.3	550.9	511.1	39.85	13.826	
7,250.0	6,775.8	7,159.2	6,776.3	28.4	20.8	90.05	758.3	300.3	550.9	509.6	41.35	13.323	
7,300.0	6,782.5	7,209.2	6,782.8	28.6	21.5	90.03	758.3	349.9	550.9	507.9	42.98	12.819	
7,350.0	6,785.7	7,259.2	6,785.8	28.8	22.3	90.01	758.3	399.8	550.9	506.2	44.71	12.322	
7,375.3	6,786.0	7,284.5	6,786.0	29.0	22.8	90.00	758.3	425.1	550.9	505.3	45.61	12.077	
7,400.0	6,785.8	7,309.2	6,785.8	29.1	23.2	90.00	758.3	449.8	550.9	504.4	46.53	11.838	
7,500.0	6,785.2	7,409.2	6,785.1	30.0	25.2	89.99	758.3	549.8	550.9	500.4	50.45	10.919	
7,600.0	6,784.6	7,509.2	6,784.4	31.2	27.3	89.98	758.3	649.8	550.9	496.2	54.67	10.076	
7,690.8	6,784.1	7,600.0	6,783.8	32.7	29.4	89.97	758.3	740.6	550.9	492.2	58.70	9.385	
7,700.0	6,784.0	7,609.2	6,783.7	32.8	29.6	89.97	758.3	749.8	550.9	491.8	59.12	9.318	
7,800.0	6,783.4	7,709.2	6,783.0	34.7	31.9	89.96	758.3	849.8	550.9	487.1	63.75	8.641	
7,900.0	6,782.8	7,809.2	6,782.3	36.8	34.3	89.95	758.3	949.8	550.9	482.4	68.53	8.038	
8,000.0	6,782.2	7,909.2	6,781.6	39.1	36.8	89.94	758.3	1,049.8	550.9	477.5	73.43	7.502	
8,100.0	6,781.6	8,009.2	6,780.9	41.4	39.3	89.93	758.3	1,149.8	550.9	472.5	78.43	7.024	
8,200.0	6,780.9	8,109.2	6,780.2	43.8	41.8	89.92	758.3	1,249.8	550.9	467.4	83.50	6.598	
8,300.0	6,780.3	8,209.2	6,779.5	46.2	44.4	89.91	758.3	1,349.8	550.9	462.3	88.64	6.215	
8,400.0	6,779.7	8,309.2	6,778.8	48.7	47.0	89.91	758.3	1,449.8	550.9	457.1	93.84	5.871	
8,500.0	6,779.1	8,409.2	6,778.1	51.2	49.6	89.90	758.3	1,549.8	550.9	451.8	99.08	5.560	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSAL #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,600.0	6,778.5	8,509.2	6,777.4	53.8	52.2	89.89	758.3	1,649.8	550.9	446.5	104.36	5.279	
8,700.0	6,777.9	8,609.2	6,776.7	56.4	54.9	89.88	758.3	1,749.8	550.9	441.2	109.67	5.023	
8,800.0	6,777.3	8,709.2	6,776.0	59.0	57.6	89.87	758.3	1,849.8	550.9	435.9	115.01	4.790	
8,900.0	6,776.7	8,809.2	6,775.3	61.6	60.2	89.86	758.3	1,949.8	550.9	430.5	120.38	4.576	
9,000.0	6,776.1	8,909.2	6,774.6	64.2	62.9	89.85	758.3	2,049.8	550.9	425.1	125.77	4.380	
9,100.0	6,775.5	9,009.2	6,773.9	66.9	65.6	89.84	758.3	2,149.8	550.9	419.7	131.18	4.200	
9,200.0	6,774.9	9,109.2	6,773.2	69.6	68.3	89.83	758.3	2,249.8	550.9	414.3	136.60	4.033	
9,300.0	6,774.2	9,209.2	6,772.5	72.2	71.1	89.82	758.3	2,349.8	550.9	408.9	142.04	3.878	
9,400.0	6,773.6	9,309.2	6,771.9	74.9	73.8	89.81	758.3	2,449.8	550.9	403.4	147.49	3.735	
9,500.0	6,773.0	9,409.2	6,771.2	77.6	76.5	89.81	758.3	2,549.8	550.9	397.9	152.96	3.602	
9,600.0	6,772.4	9,509.2	6,770.5	80.3	79.3	89.80	758.3	2,649.8	550.9	392.5	158.44	3.477	
9,700.0	6,771.8	9,609.2	6,769.8	83.0	82.0	89.79	758.3	2,749.8	550.9	387.0	163.92	3.361	
9,800.0	6,771.2	9,709.2	6,769.1	85.7	84.7	89.78	758.3	2,849.8	550.9	381.5	169.41	3.252	
9,900.0	6,770.6	9,809.2	6,768.4	88.5	87.5	89.77	758.3	2,949.8	550.9	376.0	174.92	3.150	
10,000.0	6,770.0	9,909.2	6,767.7	91.2	90.3	89.76	758.3	3,049.7	550.9	370.5	180.43	3.053	
10,100.0	6,769.4	10,009.2	6,767.0	93.9	93.0	89.75	758.3	3,149.7	550.9	365.0	185.94	2.963	
10,200.0	6,768.8	10,109.2	6,766.3	96.7	95.8	89.74	758.3	3,249.7	550.9	359.4	191.46	2.877	
10,300.0	6,768.2	10,209.2	6,765.6	99.4	98.5	89.73	758.3	3,349.7	550.9	353.9	196.99	2.797	
10,400.0	6,767.5	10,309.2	6,764.9	102.2	101.3	89.72	758.3	3,449.7	550.9	348.4	202.52	2.720	
10,500.0	6,766.9	10,409.2	6,764.2	104.9	104.1	89.72	758.3	3,549.7	550.9	342.9	208.06	2.648	
10,600.0	6,766.3	10,509.2	6,763.5	107.7	106.8	89.71	758.3	3,649.7	550.9	337.3	213.60	2.579	
10,700.0	6,765.7	10,609.2	6,762.8	110.4	109.6	89.70	758.3	3,749.7	550.9	331.8	219.14	2.514	
10,800.0	6,765.1	10,709.2	6,762.1	113.2	112.4	89.69	758.3	3,849.7	550.9	326.2	224.69	2.452	
10,900.0	6,764.5	10,809.2	6,761.4	115.9	115.1	89.68	758.3	3,949.7	550.9	320.7	230.24	2.393	
11,000.0	6,763.9	10,909.2	6,760.7	118.7	117.9	89.67	758.3	4,049.7	550.9	315.1	235.79	2.336	
11,100.0	6,763.3	11,009.2	6,760.0	121.5	120.7	89.66	758.3	4,149.7	550.9	309.6	241.35	2.283	
11,200.0	6,762.7	11,109.2	6,759.3	124.2	123.5	89.65	758.3	4,249.7	550.9	304.0	246.91	2.231	
11,300.0	6,762.1	11,209.2	6,758.7	127.0	126.3	89.64	758.3	4,349.7	550.9	298.4	252.47	2.182	
11,400.0	6,761.5	11,309.2	6,758.0	129.8	129.0	89.64	758.3	4,449.7	550.9	292.9	258.04	2.135	
11,500.0	6,760.9	11,409.2	6,757.3	132.5	131.8	89.63	758.3	4,549.7	550.9	287.3	263.61	2.090	
11,600.0	6,760.3	11,509.2	6,756.6	135.3	134.6	89.62	758.3	4,649.7	550.9	281.8	269.17	2.047	
11,700.0	6,759.6	11,609.2	6,755.9	138.1	137.4	89.61	758.3	4,749.7	550.9	276.2	274.75	2.005	
11,800.0	6,759.0	11,709.2	6,755.2	140.8	140.2	89.60	758.3	4,849.7	550.9	270.6	280.32	1.965	
11,900.0	6,758.4	11,809.2	6,754.5	143.6	142.9	89.59	758.3	4,949.7	550.9	265.1	285.80	1.928	
11,971.6	6,758.0	11,880.8	6,754.0	145.6	144.2	89.58	758.3	5,021.3	550.9	261.9	289.08	1.906 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	16.7	16.7				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	16.7	16.7	16.5	0.19	85.998	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	16.7	16.7	16.1	0.64	25.965	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	16.7	16.7	15.6	1.09	15.291	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	16.7	16.7	15.2	1.54	10.836	
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	16.7	16.7	14.7	1.99	8.391 CC	
600.0	600.0	600.0	600.0	1.2	1.2	108.39	0.0	16.7	17.2	14.7	2.44	7.041	
700.0	699.8	700.2	700.2	1.5	1.4	118.84	1.7	16.2	18.5	15.6	2.89	6.394	
800.0	799.5	800.6	800.4	1.7	1.7	128.07	6.7	14.7	20.1	16.8	3.35	6.012	
900.0	898.7	901.0	900.5	1.9	1.9	136.20	15.1	12.2	22.0	18.2	3.81	5.776	
1,000.0	997.5	1,001.6	1,000.3	2.2	2.2	143.36	26.9	8.7	24.1	19.9	4.29	5.631	
1,100.0	1,095.6	1,102.3	1,099.8	2.6	2.5	149.71	42.1	4.2	26.4	21.7	4.77	5.547	
1,200.0	1,193.1	1,203.1	1,198.7	3.0	2.8	155.41	60.6	-1.4	28.9	23.7	5.25	5.508	
1,289.7	1,279.7	1,293.0	1,286.4	3.4	3.1	160.38	79.3	-6.9	31.9	26.2	5.67	5.629	
1,300.0	1,289.6	1,303.3	1,296.5	3.4	3.2	160.98	81.4	-7.6	32.4	26.7	5.72	5.667	
1,400.0	1,385.9	1,403.1	1,393.9	3.9	3.6	165.94	102.2	-13.8	37.4	31.2	6.22	6.021	
1,500.0	1,482.1	1,502.9	1,491.3	4.4	4.0	169.71	123.1	-20.0	42.7	35.9	6.72	6.346	
1,600.0	1,578.3	1,602.8	1,588.8	4.9	4.4	172.65	143.9	-26.2	48.0	40.8	7.24	6.636	
1,700.0	1,674.5	1,702.6	1,686.2	5.5	4.8	175.00	164.7	-32.4	53.5	45.7	7.76	6.889	
1,800.0	1,770.8	1,802.4	1,783.6	6.0	5.3	176.90	185.6	-38.6	59.0	50.7	8.30	7.111	
1,900.0	1,867.0	1,902.3	1,881.1	6.5	5.7	178.48	206.4	-44.8	64.6	55.8	8.85	7.304	
2,000.0	1,963.2	2,002.1	1,978.5	7.1	6.2	179.81	227.2	-51.0	70.3	60.9	9.40	7.472	
2,100.0	2,059.4	2,101.9	2,075.9	7.6	6.6	-179.07	248.1	-57.3	75.9	66.0	9.96	7.620	
2,200.0	2,155.7	2,201.7	2,173.4	8.1	7.1	-178.10	268.9	-63.5	81.6	71.1	10.53	7.750	
2,300.0	2,251.9	2,301.6	2,270.8	8.7	7.5	-177.25	289.7	-69.7	87.3	76.2	11.10	7.865	
2,400.0	2,348.1	2,401.4	2,368.2	9.2	8.0	-176.51	310.6	-75.9	93.1	81.4	11.68	7.967	
2,500.0	2,444.3	2,501.2	2,465.7	9.8	8.4	-175.86	331.4	-82.1	98.8	86.5	12.26	8.057	
2,600.0	2,540.6	2,601.1	2,563.1	10.3	8.9	-175.27	352.2	-88.3	104.6	91.7	12.85	8.139	
2,700.0	2,636.8	2,700.9	2,660.5	10.9	9.3	-174.75	373.1	-94.5	110.3	96.9	13.44	8.212	
2,800.0	2,733.0	2,800.7	2,758.0	11.4	9.8	-174.28	393.9	-100.7	116.1	102.1	14.03	8.278	
2,900.0	2,829.2	2,900.5	2,855.4	12.0	10.2	-173.86	414.7	-107.0	121.9	107.3	14.62	8.338	
3,000.0	2,925.5	3,000.4	2,952.8	12.5	10.7	-173.47	435.6	-113.2	127.7	112.5	15.21	8.392	
3,100.0	3,021.7	3,100.2	3,050.3	13.1	11.1	-173.12	456.4	-119.4	133.5	117.7	15.81	8.442	
3,200.0	3,117.9	3,200.0	3,147.7	13.6	11.6	-172.79	477.2	-125.6	139.3	122.9	16.41	8.487	
3,300.0	3,214.1	3,299.9	3,245.1	14.2	12.1	-172.49	498.1	-131.8	145.1	128.1	17.01	8.529	
3,400.0	3,310.4	3,399.7	3,342.6	14.7	12.5	-172.22	518.9	-138.0	150.9	133.3	17.61	8.568	
3,500.0	3,406.6	3,499.5	3,440.0	15.3	13.0	-171.97	539.7	-144.2	156.7	138.5	18.21	8.603	
3,600.0	3,502.8	3,599.3	3,537.4	15.8	13.4	-171.73	560.6	-150.4	162.5	143.7	18.81	8.636	
3,700.0	3,599.0	3,699.2	3,634.9	16.4	13.9	-171.51	581.4	-156.7	168.3	148.9	19.42	8.667	
3,800.0	3,695.3	3,799.0	3,732.3	17.0	14.4	-171.30	602.2	-162.9	174.1	154.1	20.02	8.695	
3,900.0	3,791.5	3,898.8	3,829.7	17.5	14.8	-171.11	623.0	-169.1	179.9	159.3	20.63	8.722	
4,000.0	3,887.7	3,998.7	3,927.2	18.1	15.3	-170.93	643.9	-175.3	185.7	164.5	21.24	8.747	
4,100.0	3,983.9	4,098.5	4,024.6	18.6	15.7	-170.76	664.7	-181.5	191.6	169.7	21.84	8.770	
4,200.0	4,080.2	4,198.3	4,122.0	19.2	16.2	-170.60	685.5	-187.7	197.4	174.9	22.45	8.792	
4,300.0	4,176.4	4,298.2	4,219.5	19.7	16.7	-170.45	706.4	-193.9	203.2	180.2	23.06	8.812	
4,400.0	4,272.6	4,398.0	4,316.9	20.3	17.1	-170.31	727.2	-200.1	209.0	185.4	23.67	8.831	
4,500.0	4,368.8	4,497.8	4,414.3	20.8	17.6	-170.18	748.0	-206.4	214.9	190.6	24.28	8.850	
4,600.0	4,465.1	4,597.6	4,511.8	21.4	18.0	-170.05	768.9	-212.6	220.7	195.8	24.89	8.867	
4,700.0	4,561.3	4,697.5	4,609.2	21.9	18.5	-169.93	789.7	-218.8	226.5	201.0	25.50	8.883	
4,800.0	4,657.5	4,797.3	4,706.6	22.5	19.0	-169.81	810.5	-225.0	232.3	206.2	26.11	8.898	
4,900.0	4,753.7	4,897.1	4,804.1	23.1	19.4	-169.71	831.4	-231.2	238.2	211.5	26.72	8.913	
5,000.0	4,850.0	4,997.0	4,901.5	23.6	19.9	-169.60	852.2	-237.4	244.0	216.7	27.33	8.927	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,096.8	4,998.9	24.2	20.3	-169.50	873.0	-243.6	249.8	221.9	27.95	8.940	
5,200.0	5,042.4	5,196.6	5,096.4	24.7	20.8	-169.41	893.9	-249.8	255.7	227.1	28.56	8.952	
5,300.0	5,138.6	5,296.4	5,193.8	25.3	21.3	-169.32	914.7	-256.1	261.5	232.3	29.17	8.964	
5,400.0	5,234.9	5,396.3	5,291.2	25.8	21.7	-169.23	935.5	-262.3	267.3	237.6	29.79	8.976	
5,426.2	5,260.1	5,422.4	5,316.8	26.0	21.9	-169.21	941.0	-263.9	268.9	238.9	29.95	8.978	
5,500.0	5,331.3	5,496.1	5,388.7	26.3	22.2	-169.13	956.4	-268.5	272.2	241.8	30.41	8.952	
5,600.0	5,428.7	5,596.1	5,486.3	26.7	22.7	-168.88	977.2	-274.7	273.8	242.8	31.00	8.833	
5,700.0	5,526.7	5,689.2	5,577.3	27.0	23.0	-168.57	995.7	-280.2	273.1	241.5	31.52	8.664	
5,800.0	5,625.4	5,780.8	5,667.5	27.3	23.3	-168.28	1,011.2	-284.8	271.9	239.9	31.94	8.512	
5,900.0	5,724.6	5,872.4	5,758.1	27.6	23.6	-168.02	1,023.9	-288.6	270.4	238.1	32.30	8.371	
6,000.0	5,824.1	5,964.1	5,849.2	27.8	23.8	-167.78	1,033.9	-291.6	268.6	236.0	32.60	8.239	
6,100.0	5,924.0	6,055.8	5,940.7	28.0	24.0	-167.57	1,041.0	-293.7	266.4	233.6	32.83	8.114	
6,200.0	6,023.9	6,147.6	6,032.4	28.1	24.1	-167.38	1,045.4	-295.0	263.9	230.9	33.01	7.996	
6,215.9	6,039.8	6,162.2	6,046.9	28.1	24.2	179.92	1,045.8	-295.2	263.5	212.4	51.12	5.155	
6,245.9	6,069.8	6,189.8	6,074.5	28.1	24.2	179.96	1,046.4	-295.3	262.8	211.6	51.18	5.135	
6,250.0	6,073.9	6,193.6	6,078.3	28.1	24.2	89.98	1,046.5	-295.4	262.7	229.6	33.14	7.928	
6,300.0	6,123.9	6,239.5	6,124.2	28.2	24.2	90.45	1,046.9	-295.5	262.3	228.9	33.38	7.857	
6,301.8	6,125.7	6,241.2	6,125.9	28.2	24.3	90.47	1,046.9	-295.5	262.3	228.9	33.39	7.855	
6,350.0	6,173.6	6,289.0	6,173.7	28.2	24.3	91.60	1,046.9	-295.3	262.4	228.6	33.80	7.764	
6,400.0	6,222.7	6,339.4	6,224.0	28.2	24.3	92.92	1,046.9	-292.4	262.6	228.4	34.24	7.670	
6,450.0	6,271.2	6,390.2	6,274.4	28.2	24.4	94.24	1,046.9	-285.9	263.0	228.4	34.66	7.589	
6,500.0	6,318.6	6,441.4	6,324.6	28.2	24.4	95.54	1,046.9	-275.8	263.5	228.5	35.03	7.524	
6,550.0	6,364.9	6,493.2	6,374.4	28.2	24.4	96.81	1,046.9	-261.9	264.2	228.8	35.34	7.475	
6,600.0	6,409.7	6,545.3	6,423.5	28.2	24.4	98.04	1,046.9	-244.4	264.9	229.3	35.60	7.442	
6,650.0	6,452.8	6,598.0	6,471.6	28.2	24.4	99.24	1,046.9	-223.1	265.8	230.0	35.81	7.423	
6,700.0	6,494.1	6,651.1	6,518.4	28.2	24.4	100.39	1,046.9	-198.1	266.7	230.8	35.96	7.417	
6,750.0	6,533.3	6,704.6	6,563.6	28.2	24.4	101.48	1,046.9	-169.4	267.7	231.6	36.08	7.419	
6,800.0	6,570.3	6,758.6	6,606.9	28.2	24.3	102.51	1,046.9	-137.2	268.7	232.5	36.19	7.425	
6,850.0	6,604.8	6,813.0	6,648.0	28.2	24.3	103.47	1,046.9	-101.5	269.8	233.5	36.32	7.427	
6,900.0	6,636.7	6,867.8	6,686.5	28.2	24.3	104.37	1,046.9	-62.5	270.8	234.3	36.51	7.419	
6,950.0	6,665.8	6,923.0	6,722.1	28.2	24.3	105.18	1,046.9	-20.3	271.8	235.1	36.78	7.391	
7,000.0	6,692.1	6,978.5	6,754.6	28.2	24.3	105.92	1,046.9	24.7	272.8	235.6	37.18	7.338	
7,050.0	6,715.3	7,034.4	6,783.6	28.2	24.3	106.57	1,046.9	72.4	273.7	236.0	37.74	7.252	
7,100.0	6,735.4	7,090.6	6,809.0	28.2	24.3	107.13	1,046.9	122.5	274.5	236.0	38.51	7.129	
7,150.0	6,752.2	7,147.0	6,830.4	28.3	24.3	107.60	1,046.9	174.7	275.2	235.7	39.48	6.971	
7,200.0	6,765.7	7,203.6	6,847.7	28.3	24.4	107.98	1,046.9	228.6	275.8	235.1	40.69	6.778	
7,250.0	6,775.8	7,260.4	6,860.8	28.4	24.5	108.26	1,046.9	283.8	276.2	234.1	42.12	6.558	
7,300.0	6,782.5	7,317.3	6,869.4	28.6	24.8	108.45	1,046.9	340.1	276.5	232.7	43.77	6.317	
7,350.0	6,785.7	7,374.3	6,873.6	28.8	25.2	108.54	1,046.9	396.9	276.7	231.0	45.61	6.066	
7,375.3	6,786.0	7,403.1	6,874.0	29.0	25.4	108.55	1,046.9	425.7	276.7	230.1	46.59	5.938	
7,400.0	6,785.8	7,428.1	6,873.7	29.1	25.7	108.53	1,046.9	450.7	276.6	229.2	47.47	5.827	
7,500.0	6,785.2	7,528.1	6,872.7	30.0	27.1	108.44	1,046.9	550.7	276.5	225.3	51.15	5.405	
7,600.0	6,784.6	7,628.1	6,871.6	31.2	28.9	108.35	1,046.9	650.7	276.4	221.2	55.12	5.014	
7,700.0	6,784.0	7,728.1	6,870.6	32.8	31.0	108.27	1,046.9	750.7	276.2	216.9	59.30	4.658	
7,800.0	6,783.4	7,828.1	6,869.5	34.7	33.1	108.18	1,046.9	850.7	276.1	212.4	63.66	4.337	
7,900.0	6,782.8	7,928.1	6,868.5	36.8	35.4	108.10	1,046.9	950.7	275.9	207.8	68.18	4.047	
8,000.0	6,782.2	8,028.1	6,867.4	39.1	37.8	108.01	1,046.9	1,050.7	275.8	203.0	72.81	3.788	
8,100.0	6,781.6	8,128.1	6,866.4	41.4	40.2	107.92	1,046.9	1,150.7	275.7	198.1	77.55	3.555	
8,200.0	6,780.9	8,228.1	6,865.3	43.8	42.7	107.84	1,046.9	1,250.7	275.5	193.2	82.37	3.345	
8,300.0	6,780.3	8,328.1	6,864.3	46.2	45.2	107.75	1,046.9	1,350.7	275.4	188.1	87.26	3.156	
8,400.0	6,779.7	8,428.1	6,863.3	48.7	47.8	107.66	1,046.9	1,450.7	275.3	183.1	92.22	2.985	
8,500.0	6,779.1	8,528.1	6,862.2	51.2	50.3	107.58	1,046.9	1,550.7	275.1	177.9	97.22	2.830	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,600.0	6,778.5	8,628.1	6,861.2	53.8	53.0	107.49	1,046.9	1,650.7	275.0	172.7	102.27	2.689	
8,700.0	6,777.9	8,728.1	6,860.1	56.4	55.6	107.41	1,046.9	1,750.7	274.9	167.5	107.36	2.560	
8,800.0	6,777.3	8,828.1	6,859.1	59.0	58.2	107.32	1,046.9	1,850.6	274.8	162.3	112.48	2.443	
8,900.0	6,776.7	8,928.1	6,858.0	61.6	60.9	107.23	1,046.9	1,950.6	274.6	157.0	117.64	2.334	
9,000.0	6,776.1	9,028.1	6,857.0	64.2	63.5	107.14	1,046.9	2,050.6	274.5	151.7	122.82	2.235	
9,100.0	6,775.5	9,128.1	6,855.9	66.9	66.2	107.06	1,046.9	2,150.6	274.4	146.3	128.03	2.143	
9,200.0	6,774.9	9,228.1	6,854.9	69.6	68.9	106.97	1,046.9	2,250.6	274.2	141.0	133.26	2.058	
9,300.0	6,774.2	9,328.1	6,853.9	72.2	71.6	106.88	1,046.9	2,350.6	274.1	135.6	138.51	1.979	
9,400.0	6,773.6	9,428.1	6,852.8	74.9	74.3	106.80	1,046.9	2,450.6	274.0	130.2	143.77	1.906	
9,500.0	6,773.0	9,528.1	6,851.8	77.6	77.0	106.71	1,046.9	2,550.6	273.9	124.8	149.06	1.837	
9,600.0	6,772.4	9,628.1	6,850.7	80.3	79.7	106.62	1,046.9	2,650.6	273.7	119.4	154.36	1.773	
9,700.0	6,771.8	9,728.1	6,849.7	83.0	82.5	106.54	1,046.9	2,750.6	273.6	113.9	159.67	1.714	
9,800.0	6,771.2	9,828.1	6,848.6	85.7	85.2	106.45	1,046.9	2,850.6	273.5	108.5	165.00	1.657	
9,900.0	6,770.6	9,928.1	6,847.6	88.5	87.9	106.36	1,046.9	2,950.6	273.4	103.0	170.34	1.605	
10,000.0	6,770.0	10,028.1	6,846.5	91.2	90.7	106.27	1,046.9	3,050.6	273.2	97.5	175.70	1.555	
10,100.0	6,769.4	10,128.1	6,845.5	93.9	93.4	106.18	1,046.9	3,150.6	273.1	92.1	181.06	1.508	
10,200.0	6,768.8	10,228.1	6,844.5	96.7	96.2	106.10	1,046.9	3,250.6	273.0	86.6	186.44	1.464 Level 3	
10,300.0	6,768.2	10,328.1	6,843.4	99.4	98.9	106.01	1,046.9	3,350.5	272.9	81.1	191.82	1.423 Level 3	
10,400.0	6,767.5	10,428.1	6,842.4	102.2	101.7	105.92	1,046.9	3,450.5	272.8	75.5	197.22	1.383 Level 3	
10,500.0	6,766.9	10,528.1	6,841.3	104.9	104.4	105.83	1,046.9	3,550.5	272.6	70.0	202.62	1.346 Level 3	
10,600.0	6,766.3	10,628.1	6,840.3	107.7	107.2	105.75	1,046.9	3,650.5	272.5	64.5	208.03	1.310 Level 3	
10,700.0	6,765.7	10,728.1	6,839.2	110.4	110.0	105.66	1,046.9	3,750.5	272.4	59.0	213.45	1.276 Level 3	
10,800.0	6,765.1	10,828.1	6,838.2	113.2	112.7	105.57	1,046.9	3,850.5	272.3	53.4	218.88	1.244 Level 2	
10,900.0	6,764.5	10,928.1	6,837.2	115.9	115.5	105.48	1,046.9	3,950.5	272.2	47.9	224.31	1.213 Level 2	
11,000.0	6,763.9	11,028.1	6,836.1	118.7	118.3	105.39	1,046.9	4,050.5	272.1	42.3	229.75	1.184 Level 2	
11,100.0	6,763.3	11,128.1	6,835.1	121.5	121.0	105.31	1,046.9	4,150.5	271.9	36.7	235.20	1.156 Level 2	
11,200.0	6,762.7	11,228.1	6,834.0	124.2	123.8	105.22	1,046.9	4,250.5	271.8	31.2	240.66	1.130 Level 2	
11,300.0	6,762.1	11,328.1	6,833.0	127.0	126.6	105.13	1,046.9	4,350.5	271.7	25.6	246.12	1.104 Level 2	
11,400.0	6,761.5	11,428.1	6,831.9	129.8	129.4	105.04	1,046.9	4,450.5	271.6	20.0	251.59	1.080 Level 2	
11,500.0	6,760.9	11,528.1	6,830.9	132.5	132.1	104.95	1,046.9	4,550.5	271.5	14.4	257.07	1.056 Level 2	
11,600.0	6,760.3	11,628.1	6,829.9	135.3	134.9	104.86	1,046.9	4,650.5	271.4	8.8	262.55	1.034 Level 2	
11,700.0	6,759.6	11,728.1	6,828.8	138.1	137.7	104.77	1,046.9	4,750.5	271.3	3.2	268.03	1.012 Level 2	
11,800.0	6,759.0	11,828.1	6,827.8	140.8	140.5	104.69	1,046.9	4,850.4	271.2	-2.4	273.53	0.991 Level 1	
11,900.0	6,758.4	11,928.1	6,826.7	143.6	143.3	104.60	1,046.9	4,950.4	271.0	-8.0	279.02	0.971 Level 1	
11,960.4	6,758.1	11,988.5	6,826.1	145.3	144.9	104.54	1,046.9	5,010.8	271.0	-11.4	282.35	0.960 Level 1	
11,971.6	6,758.0	11,999.0	6,826.0	145.6	145.2	104.53	1,046.9	5,021.4	271.0	-12.0	282.94	0.958 Level 1, ES, SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	44.6	44.6				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	44.6	44.6	44.4	0.19	229.329	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	44.6	44.6	43.9	0.64	69.239	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	44.6	44.6	43.5	1.09	40.775	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	44.6	44.6	43.0	1.54	28.896	
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	44.6	44.6	42.6	1.99	22.377 CC	
600.0	600.0	600.0	600.0	1.2	1.2	104.88	0.0	44.6	45.0	42.6	2.44	18.435 ES	
700.0	699.8	699.8	699.8	1.5	1.4	111.07	0.0	44.6	46.6	43.7	2.89	16.122	
800.0	799.5	799.5	799.5	1.7	1.7	120.26	0.0	44.6	50.4	47.1	3.35	15.048	
900.0	898.7	900.5	900.5	1.9	1.9	130.12	1.4	43.5	56.0	52.2	3.82	14.668	
1,000.0	997.5	1,001.9	1,001.7	2.2	2.1	139.30	5.6	40.2	62.1	57.8	4.28	14.507	
1,100.0	1,095.6	1,103.4	1,102.9	2.6	2.4	147.91	12.6	34.6	68.9	64.1	4.74	14.538	
1,200.0	1,193.1	1,205.2	1,203.8	3.0	2.6	156.01	22.4	26.8	76.6	71.4	5.19	14.755	
1,289.7	1,279.7	1,296.6	1,294.1	3.4	2.9	162.83	33.6	17.8	84.3	78.8	5.59	15.087	
1,300.0	1,289.6	1,307.1	1,304.5	3.4	2.9	163.59	35.0	16.7	85.3	79.6	5.64	15.120	
1,400.0	1,385.9	1,409.1	1,404.5	3.9	3.2	170.46	50.4	4.4	93.1	87.0	6.13	15.186	
1,500.0	1,482.1	1,508.3	1,501.6	4.4	3.6	176.34	66.6	-8.5	100.7	94.0	6.66	15.119	
1,600.0	1,578.3	1,607.5	1,598.6	4.9	4.0	-178.64	82.7	-21.3	109.2	101.9	7.24	15.085	
1,700.0	1,674.5	1,706.7	1,695.7	5.5	4.4	-174.37	98.9	-34.2	118.3	110.5	7.86	15.061	
1,800.0	1,770.8	1,806.0	1,792.7	6.0	4.8	-170.72	115.0	-47.0	128.1	119.6	8.52	15.026	
1,900.0	1,867.0	1,905.2	1,889.7	6.5	5.2	-167.60	131.2	-59.9	138.3	129.0	9.23	14.982	
2,000.0	1,963.2	2,004.4	1,986.8	7.1	5.6	-164.91	147.3	-72.7	148.8	138.8	9.97	14.931	
2,100.0	2,059.4	2,103.6	2,083.8	7.6	6.0	-162.58	163.4	-85.6	159.6	148.9	10.73	14.878	
2,200.0	2,155.7	2,202.8	2,180.9	8.1	6.4	-160.54	179.6	-98.5	170.7	159.2	11.51	14.825	
2,300.0	2,251.9	2,302.0	2,277.9	8.7	6.9	-158.76	195.7	-111.3	181.9	169.6	12.31	14.773	
2,400.0	2,348.1	2,401.3	2,375.0	9.2	7.3	-157.18	211.9	-124.2	193.3	180.2	13.13	14.724	
2,500.0	2,444.3	2,500.5	2,472.0	9.8	7.7	-155.78	228.0	-137.0	204.8	190.9	13.95	14.678	
2,600.0	2,540.6	2,599.7	2,569.1	10.3	8.2	-154.53	244.1	-149.9	216.5	201.7	14.79	14.636	
2,700.0	2,636.8	2,698.9	2,666.1	10.9	8.6	-153.41	260.3	-162.7	228.2	212.5	15.63	14.597	
2,800.0	2,733.0	2,798.1	2,763.2	11.4	9.0	-152.39	276.4	-175.6	240.0	223.5	16.48	14.561	
2,900.0	2,829.2	2,897.3	2,860.2	12.0	9.5	-151.47	292.6	-188.5	251.8	234.5	17.33	14.528	
3,000.0	2,925.5	2,996.6	2,957.3	12.5	9.9	-150.64	308.7	-201.3	263.8	245.6	18.19	14.499	
3,100.0	3,021.7	3,095.8	3,054.3	13.1	10.4	-149.87	324.8	-214.2	275.7	256.7	19.05	14.472	
3,200.0	3,117.9	3,195.0	3,151.4	13.6	10.8	-149.18	341.0	-227.0	287.8	267.8	19.92	14.447	
3,300.0	3,214.1	3,294.2	3,248.4	14.2	11.2	-148.53	357.1	-239.9	299.8	279.0	20.79	14.424	
3,400.0	3,310.4	3,393.4	3,345.4	14.7	11.7	-147.94	373.3	-252.7	311.9	290.3	21.65	14.403	
3,500.0	3,406.6	3,491.1	3,441.0	15.3	12.1	-147.41	389.1	-265.3	324.1	301.6	22.50	14.403	
3,600.0	3,502.8	3,584.4	3,532.8	15.8	12.4	-147.28	402.5	-276.0	337.6	314.4	23.18	14.561	
3,700.0	3,599.0	3,677.3	3,624.6	16.4	12.7	-147.57	413.4	-284.7	352.7	329.0	23.76	14.844	
3,800.0	3,695.3	3,769.5	3,716.1	17.0	12.9	-148.23	422.0	-291.6	369.7	345.4	24.25	15.245	
3,900.0	3,791.5	3,860.8	3,807.1	17.5	13.1	-149.20	428.3	-296.5	388.4	363.8	24.64	15.761	
4,000.0	3,887.7	3,951.1	3,897.2	18.1	13.3	-150.41	432.2	-299.7	409.0	384.1	24.96	16.389	
4,100.0	3,983.9	4,040.2	3,986.3	18.6	13.4	-151.81	433.9	-301.0	431.6	406.4	25.20	17.127	
4,200.0	4,080.2	4,134.1	4,080.2	19.2	13.5	-153.36	434.0	-301.1	455.9	430.5	25.41	17.942	
4,300.0	4,176.4	4,230.3	4,176.4	19.7	13.7	-154.81	434.0	-301.1	480.6	454.9	25.65	18.740	
4,400.0	4,272.6	4,326.6	4,272.6	20.3	13.8	-156.11	434.0	-301.1	505.5	479.6	25.90	19.516	
4,500.0	4,368.8	4,422.8	4,368.8	20.8	13.9	-157.30	434.0	-301.1	530.6	504.5	26.18	20.271	
4,600.0	4,465.1	4,519.0	4,465.1	21.4	14.1	-158.37	434.0	-301.1	556.0	529.5	26.47	21.002	
4,700.0	4,561.3	4,615.2	4,561.3	21.9	14.2	-159.36	434.0	-301.1	581.5	554.7	26.78	21.711	
4,800.0	4,657.5	4,711.4	4,657.5	22.5	14.4	-160.26	434.0	-301.1	607.2	580.0	27.11	22.396	
4,900.0	4,753.7	4,807.7	4,753.7	23.1	14.5	-161.09	434.0	-301.1	632.9	605.5	27.45	23.059	
5,000.0	4,850.0	4,903.9	4,850.0	23.6	14.7	-161.85	434.0	-301.1	658.8	631.0	27.80	23.699	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	5,000.1	4,946.2	24.2	14.8	-162.56	434.0	-301.1	684.9	656.7	28.16	24.317	
5,200.0	5,042.4	5,096.3	5,042.4	24.7	15.0	-163.22	434.0	-301.1	711.0	682.4	28.54	24.914	
5,300.0	5,138.6	5,192.6	5,138.6	25.3	15.1	-163.82	434.0	-301.1	737.1	708.2	28.92	25.491	
5,400.0	5,234.9	5,288.8	5,234.9	25.8	15.3	-164.39	434.0	-301.1	763.4	734.1	29.31	26.048	
5,426.2	5,260.1	5,314.0	5,260.1	26.0	15.3	-164.53	434.0	-301.1	770.3	740.9	29.41	26.191	
5,500.0	5,331.3	5,385.3	5,331.3	26.3	15.5	-165.00	434.0	-301.1	788.8	759.1	29.72	26.545	
5,600.0	5,428.7	5,482.6	5,428.7	26.7	15.6	-165.54	434.0	-301.1	811.1	781.0	30.09	26.957	
5,700.0	5,526.7	5,580.6	5,526.7	27.0	15.8	-165.97	434.0	-301.1	830.2	799.7	30.44	27.269	
5,800.0	5,625.4	5,679.3	5,625.4	27.3	15.9	-166.31	434.0	-301.1	845.9	815.1	30.77	27.486	
5,900.0	5,724.6	5,778.5	5,724.6	27.6	16.1	-166.57	434.0	-301.1	858.3	827.2	31.08	27.615	
6,000.0	5,824.1	5,878.1	5,824.1	27.8	16.3	-166.76	434.0	-301.1	867.3	835.9	31.36	27.659	
6,100.0	5,924.0	5,977.9	5,924.0	28.0	16.5	-166.87	434.0	-301.1	872.9	841.3	31.60	27.622	
6,200.0	6,023.9	6,077.8	6,023.9	28.1	16.6	-166.91	434.0	-301.1	875.2	843.4	31.82	27.506	
6,215.9	6,039.8	6,093.7	6,039.8	28.1	16.7	-179.63	434.0	-301.1	875.2	832.2	42.99	20.357	
6,245.9	6,069.8	6,123.7	6,069.8	28.1	16.7	-179.63	434.0	-301.1	875.2	832.1	43.08	20.318	
6,250.0	6,073.9	6,127.8	6,073.9	28.1	16.7	90.37	434.0	-301.1	875.2	843.3	31.97	27.378	
6,300.0	6,123.9	6,177.8	6,123.9	28.2	16.8	90.50	434.0	-301.1	875.2	843.1	32.16	27.217	
6,350.0	6,173.6	6,227.5	6,173.6	28.2	16.9	90.85	434.0	-301.1	875.3	842.9	32.37	27.039	
6,400.0	6,222.7	6,276.7	6,222.7	28.2	17.0	91.42	434.0	-301.1	875.5	842.9	32.61	26.848	
6,450.0	6,271.2	6,325.2	6,271.3	28.2	17.1	92.17	434.0	-301.1	875.9	843.0	32.87	26.649	
6,500.0	6,318.6	6,376.2	6,322.2	28.2	17.1	93.04	434.0	-299.1	876.5	843.4	33.12	26.469	
6,550.0	6,364.9	6,428.3	6,374.0	28.2	17.2	93.91	434.0	-293.3	877.4	844.1	33.33	26.328	
6,600.0	6,409.7	6,481.5	6,426.3	28.2	17.2	94.76	434.0	-283.6	878.5	845.0	33.50	26.221	
6,650.0	6,452.8	6,536.0	6,478.9	28.2	17.2	95.60	434.0	-269.6	879.7	846.1	33.65	26.146	
6,700.0	6,494.1	6,591.7	6,531.5	28.2	17.2	96.43	434.0	-251.2	881.1	847.4	33.77	26.093	
6,750.0	6,533.3	6,648.8	6,583.7	28.2	17.2	97.23	434.0	-228.2	882.7	848.8	33.88	26.051	
6,800.0	6,570.3	6,707.1	6,635.0	28.2	17.2	98.00	434.0	-200.4	884.3	850.3	34.01	26.004	
6,850.0	6,604.8	6,766.8	6,685.0	28.2	17.2	98.74	434.0	-167.8	886.0	851.8	34.17	25.930	
6,900.0	6,636.7	6,827.9	6,733.1	28.2	17.2	99.44	434.0	-130.2	887.7	853.3	34.40	25.806	
6,950.0	6,665.8	6,890.3	6,778.8	28.2	17.1	100.09	434.0	-87.7	889.5	854.7	34.74	25.605	
7,000.0	6,692.1	6,954.0	6,821.5	28.2	17.1	100.69	434.0	-40.5	891.1	855.9	35.22	25.301	
7,050.0	6,715.3	7,018.9	6,860.4	28.2	17.1	101.22	434.0	11.4	892.7	856.8	35.90	24.868	
7,100.0	6,735.4	7,085.0	6,895.1	28.2	17.3	101.69	434.0	67.6	894.1	857.3	36.79	24.303	
7,150.0	6,752.2	7,152.0	6,924.8	28.3	17.7	102.09	434.0	127.7	895.3	857.3	37.92	23.609	
7,200.0	6,765.7	7,219.9	6,949.1	28.3	18.4	102.40	434.0	191.1	896.2	856.9	39.32	22.794	
7,250.0	6,775.8	7,288.4	6,967.3	28.4	19.4	102.63	434.0	257.1	897.0	856.0	40.97	21.895	
7,300.0	6,782.5	7,357.4	6,979.3	28.6	20.5	102.77	434.0	325.0	897.4	854.6	42.84	20.949	
7,350.0	6,785.7	7,426.6	6,984.7	28.8	21.8	102.81	434.0	393.9	897.6	852.6	44.91	19.987	
7,370.9	6,786.0	7,453.3	6,985.0	28.9	22.3	102.81	434.0	420.7	897.5	851.8	45.78	19.606	
7,375.3	6,786.0	7,457.7	6,985.0	29.0	22.3	102.81	434.0	425.1	897.5	851.6	45.94	19.537	
7,400.0	6,785.8	7,482.5	6,985.0	29.1	22.8	102.82	434.0	449.8	897.6	850.7	46.84	19.164	
7,500.0	6,785.2	7,582.5	6,985.0	30.0	24.8	102.86	434.0	549.8	897.7	847.0	50.67	17.718	
7,600.0	6,784.6	7,682.5	6,985.0	31.2	27.0	102.90	434.0	649.8	897.8	843.1	54.77	16.393	
7,700.0	6,784.0	7,782.5	6,985.0	32.8	29.3	102.93	434.0	749.8	898.0	838.9	59.10	15.195	
7,800.0	6,783.4	7,882.5	6,985.0	34.7	31.6	102.97	434.0	849.8	898.1	834.5	63.60	14.122	
7,900.0	6,782.8	7,982.5	6,985.0	36.8	34.0	103.01	434.0	949.8	898.3	830.0	68.24	13.163	
8,000.0	6,782.2	8,082.5	6,985.0	39.1	36.5	103.05	434.0	1,049.8	898.4	825.4	73.00	12.306	
8,100.0	6,781.6	8,182.5	6,985.0	41.4	39.0	103.09	434.0	1,149.8	898.5	820.7	77.86	11.541	
8,200.0	6,780.9	8,282.4	6,985.0	43.8	41.6	103.12	434.0	1,249.8	898.7	815.9	82.78	10.855	
8,300.0	6,780.3	8,382.4	6,985.0	46.2	44.2	103.16	434.0	1,349.8	898.8	811.0	87.78	10.240	
8,400.0	6,779.7	8,482.4	6,985.0	48.7	46.8	103.20	434.0	1,449.8	898.9	806.1	92.82	9.684	
8,500.0	6,779.1	8,582.4	6,985.0	51.2	49.4	103.24	434.0	1,549.8	899.1	801.2	97.91	9.182	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSAL #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,778.5	8,682.4	6,985.0	53.8	52.1	103.27	434.0	1,649.8	899.2	796.2	103.04	8.727	
8,700.0	6,777.9	8,782.4	6,985.0	56.4	54.7	103.31	434.0	1,749.8	899.4	791.2	108.20	8.312	
8,800.0	6,777.3	8,882.4	6,985.0	59.0	57.4	103.35	434.0	1,849.8	899.5	786.1	113.39	7.933	
8,900.0	6,776.7	8,982.4	6,985.0	61.6	60.1	103.39	434.0	1,949.8	899.6	781.0	118.60	7.586	
9,000.0	6,776.1	9,082.4	6,985.0	64.2	62.8	103.43	434.0	2,049.8	899.8	776.0	123.83	7.266	
9,100.0	6,775.5	9,182.4	6,985.0	66.9	65.5	103.46	434.0	2,149.8	899.9	770.8	129.08	6.972	
9,200.0	6,774.9	9,282.4	6,985.0	69.6	68.2	103.50	434.0	2,249.8	900.1	765.7	134.34	6.700	
9,300.0	6,774.2	9,382.4	6,985.0	72.2	71.0	103.54	434.0	2,349.8	900.2	760.6	139.62	6.448	
9,400.0	6,773.6	9,482.4	6,985.0	74.9	73.7	103.58	434.0	2,449.8	900.4	755.4	144.91	6.213	
9,500.0	6,773.0	9,582.4	6,985.0	77.6	76.4	103.61	434.0	2,549.8	900.5	750.3	150.21	5.995	
9,600.0	6,772.4	9,682.4	6,985.0	80.3	79.2	103.65	434.0	2,649.8	900.6	745.1	155.52	5.791	
9,700.0	6,771.8	9,782.4	6,985.0	83.0	81.9	103.69	434.0	2,749.8	900.8	739.9	160.84	5.601	
9,800.0	6,771.2	9,882.4	6,985.0	85.7	84.7	103.73	434.0	2,849.8	900.9	734.8	166.16	5.422	
9,900.0	6,770.6	9,982.4	6,985.0	88.5	87.4	103.77	434.0	2,949.8	901.1	729.6	171.49	5.254	
10,000.0	6,770.0	10,082.4	6,985.0	91.2	90.2	103.80	434.0	3,049.8	901.2	724.4	176.83	5.097	
10,100.0	6,769.4	10,182.4	6,985.0	93.9	92.9	103.84	434.0	3,149.8	901.4	719.2	182.17	4.948	
10,200.0	6,768.8	10,282.4	6,985.0	96.7	95.7	103.88	434.0	3,249.8	901.5	714.0	187.52	4.808	
10,300.0	6,768.2	10,382.4	6,985.0	99.4	98.5	103.92	434.0	3,349.8	901.7	708.8	192.87	4.675	
10,400.0	6,767.5	10,482.4	6,985.0	102.2	101.2	103.95	434.0	3,449.8	901.8	703.6	198.22	4.550	
10,500.0	6,766.9	10,582.4	6,985.0	104.9	104.0	103.99	434.0	3,549.8	901.9	698.4	203.58	4.431	
10,600.0	6,766.3	10,682.4	6,985.0	107.7	106.8	104.03	434.0	3,649.8	902.1	693.2	208.93	4.318	
10,700.0	6,765.7	10,782.4	6,985.0	110.4	109.5	104.07	434.0	3,749.8	902.2	687.9	214.29	4.210	
10,800.0	6,765.1	10,882.4	6,985.0	113.2	112.3	104.10	434.0	3,849.8	902.4	682.7	219.66	4.108	
10,900.0	6,764.5	10,982.4	6,985.0	115.9	115.1	104.14	434.0	3,949.8	902.5	677.5	225.02	4.011	
11,000.0	6,763.9	11,082.4	6,985.0	118.7	117.9	104.18	434.0	4,049.8	902.7	672.3	230.39	3.918	
11,100.0	6,763.3	11,182.4	6,985.0	121.5	120.7	104.21	434.0	4,149.7	902.8	667.1	235.75	3.830	
11,200.0	6,762.7	11,282.4	6,985.0	124.2	123.4	104.25	434.0	4,249.7	903.0	661.9	241.12	3.745	
11,300.0	6,762.1	11,382.4	6,985.0	127.0	126.2	104.29	434.0	4,349.7	903.1	656.6	246.49	3.664	
11,400.0	6,761.5	11,482.4	6,985.0	129.8	129.0	104.33	434.0	4,449.7	903.3	651.4	251.86	3.586	
11,500.0	6,760.9	11,582.4	6,985.0	132.5	131.8	104.36	434.0	4,549.7	903.4	646.2	257.23	3.512	
11,600.0	6,760.3	11,682.4	6,985.0	135.3	134.6	104.40	434.0	4,649.7	903.6	641.0	262.60	3.441	
11,700.0	6,759.6	11,782.4	6,985.0	138.1	137.4	104.44	434.0	4,749.7	903.7	635.8	267.97	3.372	
11,800.0	6,759.0	11,882.4	6,985.0	140.8	140.2	104.48	434.0	4,849.7	903.9	630.5	273.34	3.307	
11,900.0	6,758.4	11,982.4	6,985.0	143.6	142.9	104.51	434.0	4,949.7	904.0	625.3	278.72	3.244	
11,971.6	6,758.0	12,054.1	6,985.0	145.6	145.0	104.54	434.0	5,021.5	904.1	621.6	282.56	3.200 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.99	0.0	75.2	75.2				
100.0	100.0	100.0	100.0	0.1	0.1	89.99	0.0	75.2	75.2	75.0	0.19	386.992	
200.0	200.0	200.0	200.0	0.3	0.3	89.99	0.0	75.2	75.2	74.6	0.64	116.841	
300.0	300.0	300.0	300.0	0.5	0.5	89.99	0.0	75.2	75.2	74.1	1.09	68.808	
400.0	400.0	400.0	400.0	0.8	0.8	89.99	0.0	75.2	75.2	73.7	1.54	48.762	
500.0	500.0	500.0	500.0	1.0	1.0	89.99	0.0	75.2	75.2	73.2	1.99	37.761 CC	
600.0	600.0	600.0	600.0	1.2	1.2	103.99	0.0	75.2	75.6	73.2	2.44	30.987 ES	
700.0	699.8	699.8	699.8	1.5	1.4	107.74	0.0	75.2	77.1	74.2	2.89	26.654	
800.0	799.5	799.5	799.5	1.7	1.7	113.61	0.0	75.2	80.2	76.8	3.35	23.919	
900.0	898.7	898.7	898.7	1.9	1.9	120.95	0.0	75.2	85.8	82.0	3.83	22.431	
1,000.0	997.5	997.5	997.5	2.2	2.1	128.87	0.0	75.2	94.9	90.5	4.31	22.015	
1,100.0	1,095.6	1,097.0	1,097.0	2.6	2.3	137.45	-0.9	73.9	107.3	102.6	4.77	22.498	
1,200.0	1,193.1	1,195.1	1,194.9	3.0	2.5	146.46	-3.6	69.7	123.7	118.5	5.20	23.795	
1,289.7	1,279.7	1,281.4	1,280.9	3.4	2.7	154.18	-7.5	63.6	142.8	137.3	5.58	25.604	
1,300.0	1,289.6	1,291.2	1,290.7	3.4	2.7	155.05	-8.0	62.8	145.3	139.7	5.62	25.842	
1,400.0	1,385.9	1,385.7	1,384.5	3.9	2.9	162.66	-14.0	53.4	170.8	164.7	6.07	28.150	
1,500.0	1,482.1	1,478.7	1,476.5	4.4	3.2	169.12	-21.6	41.7	198.9	192.4	6.54	30.434	
1,600.0	1,578.3	1,571.6	1,567.9	4.9	3.4	174.53	-30.3	28.1	229.5	222.5	7.04	32.600	
1,700.0	1,674.5	1,664.7	1,659.6	5.5	3.7	178.73	-39.1	14.4	261.6	254.0	7.57	34.543	
1,800.0	1,770.8	1,757.8	1,751.3	6.0	4.0	-177.98	-47.8	0.8	294.7	286.6	8.13	36.259	
1,900.0	1,867.0	1,850.9	1,843.0	6.5	4.3	-175.35	-56.6	-12.9	328.5	319.8	8.70	37.764	
2,000.0	1,963.2	1,944.1	1,934.7	7.1	4.7	-173.20	-65.4	-26.6	362.8	353.5	9.29	39.074	
2,100.0	2,059.4	2,037.2	2,026.4	7.6	5.0	-171.42	-74.2	-40.2	397.5	387.6	9.88	40.228	
2,200.0	2,155.7	2,130.3	2,118.1	8.1	5.3	-169.92	-83.0	-53.9	432.5	422.0	10.49	41.243	
2,300.0	2,251.9	2,223.4	2,209.8	8.7	5.7	-168.65	-91.8	-67.6	467.7	456.6	11.10	42.140	
2,400.0	2,348.1	2,316.6	2,301.5	9.2	6.0	-167.55	-100.6	-81.3	503.1	491.4	11.72	42.937	
2,500.0	2,444.3	2,409.7	2,393.2	9.8	6.4	-166.60	-109.3	-94.9	538.6	526.3	12.34	43.648	
2,600.0	2,540.6	2,502.8	2,484.9	10.3	6.8	-165.76	-118.1	-108.6	574.2	561.3	12.97	44.285	
2,700.0	2,636.8	2,595.9	2,576.6	10.9	7.1	-165.02	-126.9	-122.3	610.0	596.4	13.60	44.859	
2,800.0	2,733.0	2,689.1	2,668.3	11.4	7.5	-164.36	-135.7	-135.9	645.8	631.6	14.23	45.378	
2,900.0	2,829.2	2,782.2	2,760.0	12.0	7.8	-163.78	-144.5	-149.6	681.7	666.8	14.87	45.850	
3,000.0	2,925.5	2,875.3	2,851.7	12.5	8.2	-163.25	-153.3	-163.3	717.6	702.1	15.51	46.280	
3,100.0	3,021.7	2,968.4	2,943.4	13.1	8.6	-162.77	-162.1	-177.0	753.6	737.4	16.15	46.673	
3,200.0	3,117.9	3,061.5	3,035.0	13.6	8.9	-162.33	-170.8	-190.6	789.6	772.8	16.79	47.034	
3,300.0	3,214.1	3,154.7	3,126.7	14.2	9.3	-161.93	-179.6	-204.3	825.7	808.2	17.43	47.366	
3,400.0	3,310.4	3,247.8	3,218.4	14.7	9.7	-161.57	-188.4	-218.0	861.8	843.7	18.08	47.673	
3,500.0	3,406.6	3,340.9	3,310.1	15.3	10.0	-161.23	-197.2	-231.7	897.9	879.2	18.72	47.957	
3,600.0	3,502.8	3,434.0	3,401.8	15.8	10.4	-160.92	-206.0	-245.3	934.0	914.7	19.37	48.221	
3,700.0	3,599.0	3,527.2	3,493.5	16.4	10.8	-160.63	-214.8	-259.0	970.2	950.2	20.02	48.466	
3,800.0	3,695.3	3,631.4	3,596.3	17.0	11.2	-160.36	-224.4	-273.9	1,006.2	985.5	20.67	48.678	
3,900.0	3,791.5	3,752.6	3,716.3	17.5	11.5	-160.25	-233.3	-287.8	1,040.1	1,018.8	21.29	48.855	
4,000.0	3,887.7	3,876.1	3,839.2	18.1	11.7	-160.39	-239.5	-297.6	1,071.5	1,049.6	21.87	48.992	
4,100.0	3,983.9	4,001.4	3,964.3	18.6	12.0	-160.74	-243.0	-302.9	1,100.3	1,077.9	22.41	49.100	
4,200.0	4,080.2	4,117.2	4,080.2	19.2	12.2	-161.24	-243.6	-303.9	1,126.7	1,103.8	22.89	49.213	
4,300.0	4,176.4	4,213.4	4,176.4	19.7	12.3	-161.67	-243.6	-303.9	1,152.6	1,129.3	23.35	49.354	
4,400.0	4,272.6	4,309.7	4,272.6	20.3	12.4	-162.09	-243.6	-303.9	1,178.6	1,154.8	23.81	49.491	
4,500.0	4,368.8	4,405.9	4,368.8	20.8	12.6	-162.48	-243.6	-303.9	1,204.6	1,180.3	24.27	49.625	
4,600.0	4,465.1	4,502.1	4,465.1	21.4	12.7	-162.86	-243.6	-303.9	1,230.7	1,205.9	24.73	49.755	
4,700.0	4,561.3	4,598.3	4,561.3	21.9	12.9	-163.23	-243.6	-303.9	1,256.8	1,231.6	25.20	49.881	
4,800.0	4,657.5	4,694.6	4,657.5	22.5	13.0	-163.58	-243.6	-303.9	1,282.9	1,257.3	25.66	50.003	
4,900.0	4,753.7	4,790.8	4,753.7	23.1	13.2	-163.91	-243.6	-303.9	1,309.1	1,283.0	26.12	50.122	
5,000.0	4,850.0	4,887.0	4,850.0	23.6	13.3	-164.24	-243.6	-303.9	1,335.4	1,308.8	26.58	50.236	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	4,983.2	4,946.2	24.2	13.5	-164.55	-243.6	-303.9	1,361.7	1,334.6	27.05	50.347	
5,200.0	5,042.4	5,079.5	5,042.4	24.7	13.7	-164.85	-243.6	-303.9	1,388.0	1,360.5	27.51	50.454	
5,300.0	5,138.6	5,175.7	5,138.6	25.3	13.8	-165.13	-243.6	-303.9	1,414.3	1,386.4	27.97	50.558	
5,400.0	5,234.9	5,271.9	5,234.9	25.8	14.0	-165.41	-243.6	-303.9	1,440.7	1,412.3	28.44	50.658	
5,426.2	5,260.1	5,297.1	5,260.1	26.0	14.0	-165.48	-243.6	-303.9	1,447.7	1,419.1	28.56	50.684	
5,500.0	5,331.3	5,368.4	5,331.3	26.3	14.1	-165.76	-243.6	-303.9	1,466.3	1,437.3	28.96	50.622	
5,600.0	5,428.7	5,465.7	5,428.7	26.7	14.3	-166.09	-243.6	-303.9	1,488.6	1,459.2	29.45	50.544	
5,700.0	5,526.7	5,563.7	5,526.7	27.0	14.5	-166.36	-243.6	-303.9	1,507.7	1,477.8	29.90	50.419	
5,800.0	5,625.4	5,662.4	5,625.4	27.3	14.6	-166.58	-243.6	-303.9	1,523.5	1,493.2	30.32	50.249	
5,900.0	5,724.6	5,761.6	5,724.6	27.6	14.8	-166.75	-243.6	-303.9	1,535.9	1,505.2	30.69	50.037	
6,000.0	5,824.1	5,861.2	5,824.1	27.8	15.0	-166.87	-243.6	-303.9	1,544.9	1,513.9	31.03	49.784	
6,100.0	5,924.0	5,961.0	5,924.0	28.0	15.2	-166.94	-243.6	-303.9	1,550.5	1,519.2	31.33	49.493	
6,200.0	6,023.9	6,061.0	6,023.9	28.1	15.4	-166.97	-243.6	-303.9	1,552.8	1,521.2	31.58	49.162	
6,215.9	6,039.8	6,076.8	6,039.8	28.1	15.4	-179.69	-243.6	-303.9	1,552.8	1,511.5	41.34	37.558	
6,245.9	6,069.8	6,106.9	6,069.8	28.1	15.4	-179.69	-243.6	-303.8	1,552.8	1,511.4	41.43	37.479	
6,250.0	6,073.9	6,111.1	6,074.0	28.1	15.4	90.31	-243.6	-303.8	1,552.8	1,521.1	31.74	48.930	
6,300.0	6,123.9	6,161.6	6,124.5	28.2	15.5	90.30	-243.6	-301.4	1,552.8	1,520.9	31.87	48.718	
6,350.0	6,173.6	6,212.2	6,174.7	28.2	15.6	90.28	-243.6	-295.5	1,552.8	1,520.8	31.97	48.571	
6,400.0	6,222.7	6,262.7	6,224.3	28.2	15.6	90.27	-243.6	-286.1	1,552.8	1,520.8	32.03	48.476	
6,450.0	6,271.2	6,313.2	6,273.2	28.2	15.6	90.25	-243.6	-273.2	1,552.8	1,520.7	32.07	48.425	
6,500.0	6,318.6	6,363.7	6,320.9	28.2	15.6	90.24	-243.6	-256.9	1,552.8	1,520.7	32.08	48.403	
6,550.0	6,364.9	6,414.1	6,367.4	28.2	15.6	90.22	-243.6	-237.3	1,552.8	1,520.7	32.09	48.395	
6,600.0	6,409.7	6,464.5	6,412.3	28.2	15.6	90.20	-243.6	-214.5	1,552.8	1,520.7	32.09	48.382	
6,650.0	6,452.8	6,514.9	6,455.5	28.2	15.5	90.18	-243.6	-188.6	1,552.8	1,520.7	32.12	48.340	
6,700.0	6,494.1	6,565.2	6,496.7	28.2	15.5	90.16	-243.6	-159.7	1,552.8	1,520.6	32.19	48.241	
6,750.0	6,533.3	6,615.5	6,535.8	28.2	15.5	90.14	-243.6	-128.1	1,552.8	1,520.5	32.31	48.056	
6,800.0	6,570.3	6,665.7	6,572.5	28.2	15.6	90.12	-243.6	-93.8	1,552.8	1,520.3	32.52	47.754	
6,850.0	6,604.8	6,715.9	6,606.7	28.2	15.6	90.09	-243.6	-57.1	1,552.8	1,520.0	32.82	47.308	
6,900.0	6,636.7	6,766.0	6,638.2	28.2	15.8	90.07	-243.6	-18.1	1,552.8	1,519.5	33.25	46.697	
6,950.0	6,665.8	6,816.2	6,666.9	28.2	16.0	90.05	-243.6	23.0	1,552.8	1,519.0	33.82	45.907	
7,000.0	6,692.1	6,866.2	6,692.6	28.2	16.3	90.02	-243.6	65.9	1,552.8	1,518.2	34.55	44.941	
7,050.0	6,715.3	6,916.2	6,715.3	28.2	16.7	90.00	-243.6	110.5	1,552.8	1,517.3	35.44	43.809	
7,072.6	6,724.8	6,938.8	6,724.5	28.2	16.9	89.99	-243.6	131.1	1,552.8	1,516.9	35.91	43.240	
7,100.0	6,735.4	6,966.2	6,734.7	28.2	17.2	89.97	-243.6	156.5	1,552.8	1,516.3	36.51	42.536	
7,150.0	6,752.2	7,016.1	6,750.9	28.3	17.9	89.95	-243.6	203.7	1,552.8	1,515.1	37.73	41.155	
7,200.0	6,765.7	7,066.0	6,763.8	28.3	18.6	89.93	-243.6	251.9	1,552.8	1,513.7	39.11	39.703	
7,250.0	6,775.8	7,115.8	6,773.3	28.4	19.3	89.90	-243.6	300.8	1,552.8	1,512.2	40.63	38.216	
7,300.0	6,782.5	7,165.6	6,779.3	28.6	20.2	89.88	-243.6	350.2	1,552.8	1,510.5	42.28	36.729	
7,350.0	6,785.7	7,215.4	6,781.9	28.8	21.1	89.86	-243.6	399.9	1,552.8	1,508.8	44.02	35.274	
7,375.3	6,786.0	7,240.6	6,781.9	29.0	21.6	89.85	-243.6	425.1	1,552.8	1,507.9	44.94	34.553	
7,400.0	6,785.8	7,265.3	6,781.8	29.1	22.1	89.85	-243.6	449.8	1,552.8	1,506.9	45.87	33.853	
7,500.0	6,785.2	7,365.3	6,781.1	30.0	24.1	89.85	-243.6	549.8	1,552.8	1,503.0	49.83	31.162	
7,600.0	6,784.6	7,465.3	6,780.4	31.2	26.3	89.85	-243.6	649.8	1,552.8	1,498.7	54.08	28.715	
7,700.0	6,784.0	7,565.3	6,779.8	32.8	28.6	89.84	-243.6	749.8	1,552.8	1,494.2	58.55	26.521	
7,800.0	6,783.4	7,665.3	6,779.1	34.7	30.9	89.84	-243.6	849.8	1,552.8	1,489.6	63.21	24.567	
7,900.0	6,782.8	7,765.3	6,778.4	36.8	33.4	89.84	-243.6	949.8	1,552.8	1,484.8	68.01	22.832	
8,000.0	6,782.2	7,865.3	6,777.8	39.1	35.9	89.84	-243.6	1,049.8	1,552.8	1,479.9	72.93	21.292	
8,100.0	6,781.6	7,965.3	6,777.1	41.4	38.4	89.84	-243.6	1,149.8	1,552.8	1,474.9	77.94	19.923	
8,200.0	6,780.9	8,065.3	6,776.4	43.8	41.0	89.83	-243.6	1,249.8	1,552.8	1,469.8	83.03	18.701	
8,300.0	6,780.3	8,165.3	6,775.8	46.2	43.6	89.83	-243.6	1,349.8	1,552.8	1,464.6	88.19	17.608	
8,400.0	6,779.7	8,265.3	6,775.1	48.7	46.2	89.83	-243.6	1,449.8	1,552.8	1,459.4	93.39	16.626	
8,500.0	6,779.1	8,365.3	6,774.4	51.2	48.8	89.83	-243.6	1,549.8	1,552.8	1,454.1	98.65	15.741	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSAL #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,778.5	8,465.3	6,773.8	53.8	51.5	89.83	-243.6	1,649.8	1,552.8	1,448.9	103.94	14.940	
8,700.0	6,777.9	8,565.3	6,773.1	56.4	54.2	89.82	-243.6	1,749.8	1,552.8	1,443.5	109.26	14.212	
8,800.0	6,777.3	8,665.3	6,772.4	59.0	56.9	89.82	-243.6	1,849.8	1,552.8	1,438.2	114.61	13.548	
8,900.0	6,776.7	8,765.3	6,771.8	61.6	59.6	89.82	-243.6	1,949.8	1,552.8	1,432.8	119.99	12.941	
9,000.0	6,776.1	8,865.3	6,771.1	64.2	62.3	89.82	-243.6	2,049.8	1,552.8	1,427.4	125.39	12.384	
9,100.0	6,775.5	8,965.3	6,770.4	66.9	65.0	89.81	-243.6	2,149.8	1,552.8	1,422.0	130.80	11.871	
9,200.0	6,774.9	9,065.3	6,769.8	69.6	67.7	89.81	-243.6	2,249.8	1,552.8	1,416.6	136.24	11.398	
9,300.0	6,774.2	9,165.3	6,769.1	72.2	70.5	89.81	-243.6	2,349.8	1,552.8	1,411.1	141.68	10.960	
9,400.0	6,773.6	9,265.3	6,768.4	74.9	73.2	89.81	-243.6	2,449.8	1,552.8	1,405.6	147.14	10.553	
9,500.0	6,773.0	9,365.3	6,767.7	77.6	75.9	89.81	-243.6	2,549.7	1,552.8	1,400.2	152.61	10.175	
9,600.0	6,772.4	9,465.3	6,767.1	80.3	78.7	89.80	-243.6	2,649.7	1,552.8	1,394.7	158.10	9.822	
9,700.0	6,771.8	9,565.3	6,766.4	83.0	81.4	89.80	-243.6	2,749.7	1,552.8	1,389.2	163.59	9.492	
9,800.0	6,771.2	9,665.3	6,765.7	85.7	84.2	89.80	-243.6	2,849.7	1,552.8	1,383.7	169.08	9.184	
9,900.0	6,770.6	9,765.3	6,765.1	88.5	87.0	89.80	-243.6	2,949.7	1,552.8	1,378.2	174.59	8.894	
10,000.0	6,770.0	9,865.3	6,764.4	91.2	89.7	89.79	-243.6	3,049.7	1,552.8	1,372.7	180.10	8.622	
10,100.0	6,769.4	9,965.3	6,763.7	93.9	92.5	89.79	-243.6	3,149.7	1,552.8	1,367.2	185.62	8.365	
10,200.0	6,768.8	10,065.3	6,763.0	96.7	95.2	89.79	-243.6	3,249.7	1,552.8	1,361.6	191.15	8.123	
10,300.0	6,768.2	10,165.3	6,762.4	99.4	98.0	89.79	-243.6	3,349.7	1,552.8	1,356.1	196.68	7.895	
10,400.0	6,767.5	10,265.3	6,761.7	102.2	100.8	89.78	-243.6	3,449.7	1,552.8	1,350.6	202.22	7.679	
10,500.0	6,766.9	10,365.3	6,761.0	104.9	103.6	89.78	-243.6	3,549.7	1,552.8	1,345.0	207.76	7.474	
10,600.0	6,766.3	10,465.3	6,760.3	107.7	106.3	89.78	-243.6	3,649.7	1,552.8	1,339.5	213.30	7.280	
10,700.0	6,765.7	10,565.3	6,759.6	110.4	109.1	89.78	-243.6	3,749.7	1,552.8	1,333.9	218.85	7.095	
10,800.0	6,765.1	10,665.3	6,759.0	113.2	111.9	89.77	-243.6	3,849.7	1,552.8	1,328.4	224.40	6.920	
10,900.0	6,764.5	10,765.3	6,758.3	115.9	114.7	89.77	-243.6	3,949.7	1,552.8	1,322.8	229.95	6.753	
11,000.0	6,763.9	10,865.3	6,757.6	118.7	117.5	89.77	-243.6	4,049.7	1,552.8	1,317.3	235.51	6.593	
11,100.0	6,763.3	10,965.3	6,756.9	121.5	120.2	89.77	-243.6	4,149.7	1,552.8	1,311.7	241.07	6.441	
11,200.0	6,762.7	11,065.3	6,756.3	124.2	123.0	89.76	-243.6	4,249.7	1,552.8	1,306.2	246.63	6.296	
11,300.0	6,762.1	11,165.3	6,755.6	127.0	125.8	89.76	-243.6	4,349.7	1,552.8	1,300.6	252.20	6.157	
11,400.0	6,761.5	11,265.3	6,754.9	129.8	128.6	89.76	-243.6	4,449.7	1,552.8	1,295.0	257.77	6.024	
11,500.0	6,760.9	11,365.3	6,754.2	132.5	131.4	89.75	-243.6	4,549.7	1,552.8	1,289.5	263.34	5.897	
11,600.0	6,760.3	11,465.3	6,753.5	135.3	134.2	89.75	-243.6	4,649.7	1,552.8	1,283.9	268.91	5.774	
11,700.0	6,759.6	11,565.3	6,752.9	138.1	137.0	89.75	-243.6	4,749.7	1,552.8	1,278.3	274.48	5.657	
11,800.0	6,759.0	11,665.3	6,752.2	140.8	139.8	89.75	-243.6	4,849.7	1,552.8	1,272.7	280.06	5.545	
11,900.0	6,758.4	11,765.3	6,751.5	143.6	142.5	89.74	-243.6	4,949.7	1,552.8	1,267.2	285.63	5.436	
11,971.6	6,758.0	11,836.9	6,751.0	145.6	144.5	89.74	-243.6	5,021.3	1,552.8	1,263.2	289.63	5.361 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	61.3	61.3				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	61.3	61.3	61.1	0.19	315.327	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	61.3	61.3	60.7	0.64	95.204	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	61.3	61.3	60.2	1.09	56.065	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	61.3	61.3	59.8	1.54	39.732	
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	61.3	61.3	59.3	1.99	30.768 CC	
600.0	600.0	600.0	600.0	1.2	1.2	104.29	0.0	61.3	61.7	59.3	2.44	25.281 ES	
700.0	699.8	699.8	699.8	1.5	1.4	108.86	0.0	61.3	63.2	60.3	2.89	21.859	
800.0	799.5	799.5	799.5	1.7	1.7	115.89	0.0	61.3	66.5	63.2	3.35	19.857	
900.0	898.7	898.7	898.7	1.9	1.9	124.42	0.0	61.3	72.7	68.9	3.82	19.025	
1,000.0	997.5	1,000.2	1,000.2	2.2	2.1	133.80	0.4	59.6	81.0	76.7	4.29	18.878	
1,100.0	1,095.6	1,101.5	1,101.3	2.6	2.3	143.58	1.7	54.4	90.6	85.9	4.74	19.107	
1,200.0	1,193.1	1,202.3	1,201.7	3.0	2.6	153.33	3.9	45.9	102.5	97.3	5.18	19.780	
1,289.7	1,279.7	1,292.2	1,290.9	3.4	2.8	161.68	6.6	35.3	115.8	110.2	5.58	20.770	
1,300.0	1,289.6	1,302.5	1,301.2	3.4	2.8	162.61	6.9	33.9	117.5	111.9	5.62	20.895	
1,400.0	1,385.9	1,402.3	1,399.7	3.9	3.1	171.02	10.8	18.7	134.1	128.0	6.12	21.928	
1,500.0	1,482.1	1,501.7	1,497.3	4.4	3.4	178.59	15.4	0.3	151.2	144.5	6.68	22.647	
1,600.0	1,578.3	1,598.4	1,591.8	4.9	3.8	-175.09	20.4	-19.2	169.7	162.4	7.31	23.210	
1,700.0	1,674.5	1,695.0	1,686.4	5.5	4.1	-170.02	25.3	-38.7	189.8	181.8	8.00	23.711	
1,800.0	1,770.8	1,791.7	1,781.0	6.0	4.5	-165.92	30.2	-58.2	211.1	202.3	8.74	24.146	
1,900.0	1,867.0	1,888.4	1,875.5	6.5	4.9	-162.58	35.1	-77.7	233.2	223.7	9.51	24.520	
2,000.0	1,963.2	1,985.1	1,970.1	7.1	5.3	-159.81	40.1	-97.2	256.0	245.7	10.30	24.845	
2,100.0	2,059.4	2,081.8	2,064.7	7.6	5.7	-157.50	45.0	-116.7	279.2	268.1	11.11	25.128	
2,200.0	2,155.7	2,178.5	2,159.2	8.1	6.1	-155.54	49.9	-136.1	302.9	290.9	11.93	25.378	
2,300.0	2,251.9	2,275.1	2,253.8	8.7	6.5	-153.86	54.8	-155.6	326.8	314.0	12.76	25.600	
2,400.0	2,348.1	2,371.8	2,348.4	9.2	7.0	-152.41	59.8	-175.1	350.9	337.3	13.60	25.798	
2,500.0	2,444.3	2,468.5	2,443.0	9.8	7.4	-151.15	64.7	-194.6	375.2	360.8	14.45	25.977	
2,600.0	2,540.6	2,565.2	2,537.5	10.3	7.8	-150.04	69.6	-214.1	399.7	384.4	15.29	26.138	
2,700.0	2,636.8	2,661.9	2,632.1	10.9	8.2	-149.06	74.5	-233.6	424.3	408.2	16.14	26.285	
2,800.0	2,733.0	2,759.2	2,727.5	11.4	8.6	-148.27	79.3	-252.5	449.0	432.1	16.92	26.535	
2,900.0	2,829.2	2,857.2	2,824.1	12.0	8.9	-147.95	83.4	-268.6	473.5	455.9	17.61	26.881	
3,000.0	2,925.5	2,955.4	2,921.3	12.5	9.2	-148.06	86.7	-281.5	497.8	479.5	18.25	27.276	
3,100.0	3,021.7	3,053.6	3,019.0	13.1	9.4	-148.54	89.1	-291.2	521.8	503.0	18.82	27.726	
3,200.0	3,117.9	3,151.4	3,116.6	13.6	9.6	-149.33	90.7	-297.6	545.7	526.4	19.33	28.237	
3,300.0	3,214.1	3,248.7	3,213.9	14.2	9.7	-150.40	91.5	-300.7	569.6	549.8	19.77	28.815	
3,400.0	3,310.4	3,345.3	3,310.4	14.7	9.9	-151.65	91.6	-301.1	593.6	573.5	20.17	29.437	
3,500.0	3,406.6	3,441.5	3,406.6	15.3	10.0	-152.84	91.6	-301.1	617.9	597.4	20.57	30.046	
3,600.0	3,502.8	3,537.7	3,502.8	15.8	10.2	-153.94	91.6	-301.1	642.4	621.5	20.97	30.641	
3,700.0	3,599.0	3,633.9	3,599.0	16.4	10.4	-154.96	91.6	-301.1	667.2	645.8	21.37	31.220	
3,800.0	3,695.3	3,730.2	3,695.3	17.0	10.5	-155.91	91.6	-301.1	692.1	670.3	21.78	31.783	
3,900.0	3,791.5	3,826.4	3,791.5	17.5	10.7	-156.79	91.6	-301.1	717.2	695.0	22.18	32.328	
4,000.0	3,887.7	3,922.6	3,887.7	18.1	10.8	-157.61	91.6	-301.1	742.4	719.8	22.60	32.856	
4,100.0	3,983.9	4,018.8	3,983.9	18.6	11.0	-158.38	91.6	-301.1	767.8	744.8	23.01	33.367	
4,200.0	4,080.2	4,115.1	4,080.2	19.2	11.2	-159.10	91.6	-301.1	793.3	769.8	23.43	33.860	
4,300.0	4,176.4	4,211.3	4,176.4	19.7	11.3	-159.78	91.6	-301.1	818.9	795.0	23.85	34.337	
4,400.0	4,272.6	4,307.5	4,272.6	20.3	11.5	-160.42	91.6	-301.1	844.6	820.3	24.27	34.797	
4,500.0	4,368.8	4,403.7	4,368.8	20.8	11.7	-161.01	91.6	-301.1	870.4	845.7	24.70	35.240	
4,600.0	4,465.1	4,500.0	4,465.1	21.4	11.8	-161.58	91.6	-301.1	896.2	871.1	25.13	35.668	
4,700.0	4,561.3	4,596.2	4,561.3	21.9	12.0	-162.11	91.6	-301.1	922.2	896.6	25.56	36.081	
4,800.0	4,657.5	4,692.4	4,657.5	22.5	12.2	-162.61	91.6	-301.1	948.2	922.2	25.99	36.479	
4,900.0	4,753.7	4,788.6	4,753.7	23.1	12.4	-163.09	91.6	-301.1	974.3	947.9	26.43	36.863	
5,000.0	4,850.0	4,884.9	4,850.0	23.6	12.5	-163.54	91.6	-301.1	1,000.5	973.6	26.87	37.233	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,946.2	4,981.1	4,946.2	24.2	12.7	-163.97	91.6	-301.1	1,026.7	999.4	27.31	37.590	
5,200.0	5,042.4	5,077.3	5,042.4	24.7	12.9	-164.38	91.6	-301.1	1,052.9	1,025.2	27.76	37.934	
5,300.0	5,138.6	5,173.5	5,138.6	25.3	13.1	-164.77	91.6	-301.1	1,079.2	1,051.0	28.20	38.266	
5,400.0	5,234.9	5,269.8	5,234.9	25.8	13.3	-165.14	91.6	-301.1	1,105.6	1,076.9	28.65	38.586	
5,426.2	5,260.1	5,295.0	5,260.1	26.0	13.3	-165.23	91.6	-301.1	1,112.5	1,083.7	28.77	38.668	
5,500.0	5,331.3	5,366.2	5,331.3	26.3	13.4	-165.57	91.6	-301.1	1,131.1	1,101.9	29.14	38.818	
5,600.0	5,428.7	5,463.5	5,428.7	26.7	13.6	-165.97	91.6	-301.1	1,153.4	1,123.9	29.58	38.988	
5,700.0	5,526.7	5,561.6	5,526.7	27.0	13.8	-166.30	91.6	-301.1	1,172.5	1,142.5	30.00	39.082	
5,800.0	5,625.4	5,660.3	5,625.4	27.3	14.0	-166.55	91.6	-301.1	1,188.3	1,157.9	30.39	39.106	
5,900.0	5,724.6	5,759.4	5,724.6	27.6	14.2	-166.75	91.6	-301.1	1,200.7	1,169.9	30.74	39.062	
6,000.0	5,824.1	5,859.0	5,824.1	27.8	14.4	-166.90	91.6	-301.1	1,209.7	1,178.6	31.05	38.954	
6,100.0	5,924.0	5,958.8	5,924.0	28.0	14.6	-166.98	91.6	-301.1	1,215.3	1,184.0	31.33	38.786	
6,200.0	6,023.9	6,058.8	6,023.9	28.1	14.8	-167.02	91.6	-301.1	1,217.6	1,186.0	31.58	38.557	
6,215.9	6,039.8	6,074.7	6,039.8	28.1	14.8	-179.74	91.6	-301.1	1,217.6	1,176.8	40.85	29.808	
6,245.9	6,069.8	6,104.7	6,069.8	28.1	14.9	-179.74	91.6	-301.1	1,217.6	1,176.7	40.94	29.740	
6,250.0	6,073.9	6,108.8	6,073.9	28.1	14.9	90.26	91.6	-301.1	1,217.6	1,185.9	31.73	38.370	
6,300.0	6,123.9	6,158.7	6,123.9	28.2	15.0	90.36	91.6	-301.1	1,217.6	1,185.7	31.91	38.156	
6,350.0	6,173.6	6,208.7	6,173.8	28.2	15.1	90.61	91.6	-300.9	1,217.7	1,185.6	32.09	37.944	
6,400.0	6,222.7	6,259.5	6,224.5	28.2	15.1	90.89	91.6	-298.0	1,217.8	1,185.5	32.24	37.774	
6,450.0	6,271.2	6,310.7	6,275.3	28.2	15.2	91.17	91.6	-291.4	1,217.9	1,185.5	32.35	37.644	
6,500.0	6,318.6	6,362.4	6,325.9	28.2	15.2	91.45	91.6	-281.1	1,218.0	1,185.6	32.44	37.549	
6,550.0	6,364.9	6,414.5	6,376.1	28.2	15.3	91.72	91.6	-267.0	1,218.2	1,185.7	32.50	37.480	
6,600.0	6,409.7	6,467.1	6,425.6	28.2	15.3	91.99	91.6	-249.2	1,218.3	1,185.8	32.55	37.425	
6,650.0	6,452.8	6,520.2	6,474.0	28.2	15.3	92.24	91.6	-227.5	1,218.5	1,185.9	32.61	37.368	
6,700.0	6,494.1	6,573.7	6,521.1	28.2	15.3	92.49	91.6	-202.1	1,218.8	1,186.1	32.68	37.291	
6,750.0	6,533.3	6,627.6	6,566.5	28.2	15.3	92.72	91.6	-173.0	1,219.0	1,186.2	32.80	37.170	
6,800.0	6,570.3	6,682.0	6,609.9	28.2	15.4	92.94	91.6	-140.3	1,219.2	1,186.2	32.97	36.979	
6,850.0	6,604.8	6,736.8	6,651.1	28.2	15.5	93.15	91.6	-104.2	1,219.5	1,186.2	33.23	36.693	
6,900.0	6,636.7	6,792.0	6,689.5	28.2	15.7	93.34	91.6	-64.7	1,219.7	1,186.1	33.61	36.285	
6,950.0	6,665.8	6,847.5	6,725.1	28.2	15.9	93.51	91.6	-22.0	1,219.9	1,185.8	34.13	35.739	
7,000.0	6,692.1	6,903.3	6,757.4	28.2	16.2	93.66	91.6	23.5	1,220.1	1,185.3	34.82	35.038	
7,050.0	6,715.3	6,959.5	6,786.3	28.2	16.7	93.80	91.6	71.7	1,220.3	1,184.6	35.70	34.183	
7,100.0	6,735.4	7,015.9	6,811.4	28.2	17.3	93.91	91.6	122.2	1,220.4	1,183.7	36.77	33.195	
7,150.0	6,752.2	7,072.5	6,832.4	28.3	17.9	94.00	91.6	174.7	1,220.6	1,182.5	38.03	32.098	
7,200.0	6,765.7	7,129.3	6,849.4	28.3	18.7	94.07	91.6	228.9	1,220.7	1,181.2	39.47	30.925	
7,250.0	6,775.8	7,186.2	6,862.0	28.4	19.6	94.12	91.6	284.4	1,220.7	1,179.7	41.09	29.709	
7,300.0	6,782.5	7,243.2	6,870.1	28.6	20.6	94.14	91.6	340.8	1,220.8	1,177.9	42.86	28.484	
7,350.0	6,785.7	7,300.3	6,873.8	28.8	21.6	94.14	91.6	397.7	1,220.8	1,176.0	44.75	27.280	
7,375.3	6,786.0	7,328.5	6,873.9	29.0	22.1	94.13	91.6	425.9	1,220.8	1,175.0	45.74	26.690	
7,400.0	6,785.8	7,353.3	6,873.7	29.1	22.6	94.13	91.6	450.7	1,220.8	1,174.1	46.67	26.157	
7,500.0	6,785.2	7,453.3	6,872.7	30.0	24.6	94.11	91.6	550.7	1,220.7	1,170.1	50.62	24.115	
7,600.0	6,784.6	7,553.3	6,871.7	31.2	26.8	94.09	91.6	650.7	1,220.7	1,165.9	54.85	22.254	
7,700.0	6,784.0	7,653.3	6,870.8	32.8	29.1	94.08	91.6	750.7	1,220.7	1,161.4	59.31	20.581	
7,800.0	6,783.4	7,753.3	6,869.8	34.7	31.5	94.06	91.6	850.7	1,220.7	1,156.7	63.95	19.088	
7,900.0	6,782.8	7,853.3	6,868.8	36.8	33.9	94.04	91.6	950.7	1,220.6	1,151.9	68.73	17.760	
8,000.0	6,782.2	7,953.3	6,867.8	39.1	36.4	94.02	91.6	1,050.6	1,220.6	1,147.0	73.63	16.578	
8,100.0	6,781.6	8,053.3	6,866.8	41.4	38.9	94.01	91.6	1,150.6	1,220.6	1,142.0	78.62	15.525	
8,200.0	6,780.9	8,153.3	6,865.9	43.8	41.5	93.99	91.6	1,250.6	1,220.6	1,136.9	83.69	14.584	
8,300.0	6,780.3	8,253.3	6,864.9	46.2	44.1	93.97	91.6	1,350.6	1,220.5	1,131.7	88.83	13.740	
8,400.0	6,779.7	8,353.2	6,863.9	48.7	46.7	93.96	91.6	1,450.6	1,220.5	1,126.5	94.02	12.981	
8,500.0	6,779.1	8,453.2	6,862.9	51.2	49.3	93.94	91.6	1,550.6	1,220.5	1,121.2	99.25	12.296	
8,600.0	6,778.5	8,553.2	6,862.0	53.8	52.0	93.92	91.6	1,650.6	1,220.5	1,115.9	104.53	11.676	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-312 - ORIGINAL WELLBORE - PROPOSAL #2												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	6,777.9	8,722.2	6,860.3	56.4	56.5	93.90	94.7	1,819.5	1,219.3	1,107.7	111.66	10.920	
8,800.0	6,777.3	8,922.2	6,858.3	59.0	61.8	93.93	116.0	2,018.3	1,207.8	1,088.2	119.58	10.100	
8,900.0	6,776.7	9,021.2	6,857.4	61.6	64.4	93.96	129.8	2,116.4	1,193.9	1,069.0	124.85	9.562	
9,000.0	6,776.1	9,120.3	6,856.4	64.2	67.0	93.99	143.5	2,214.4	1,180.0	1,049.8	130.15	9.066	
9,100.0	6,775.5	9,219.3	6,855.4	66.9	69.7	94.02	157.3	2,312.5	1,166.1	1,030.6	135.46	8.608	
9,200.0	6,774.9	9,318.3	6,854.4	69.6	72.3	94.05	171.1	2,410.5	1,152.1	1,011.4	140.79	8.184	
9,300.0	6,774.2	9,400.0	6,853.6	72.2	74.5	94.07	182.2	2,491.4	1,138.6	993.0	145.67	7.817	
9,400.0	6,773.6	9,461.5	6,853.0	74.9	76.2	94.09	188.8	2,552.5	1,127.9	977.9	150.04	7.518	
9,500.0	6,773.0	9,524.3	6,852.4	77.6	77.9	94.09	193.4	2,615.2	1,120.5	966.0	154.46	7.254	
9,600.0	6,772.4	9,600.0	6,851.7	80.3	80.0	94.09	196.3	2,690.8	1,116.5	957.2	159.25	7.011	
9,682.3	6,771.9	9,642.1	6,851.3	82.6	81.1	94.08	196.6	2,732.9	1,115.4	952.7	162.66	6.857	
9,700.0	6,771.8	9,659.7	6,851.1	83.0	81.6	94.08	196.6	2,750.6	1,115.4	951.8	163.63	6.817	
9,800.0	6,771.2	9,759.7	6,850.1	85.7	84.4	94.06	196.6	2,850.6	1,115.4	946.3	169.11	6.595	
9,900.0	6,770.6	9,859.7	6,849.1	88.5	87.1	94.04	196.6	2,950.5	1,115.3	940.7	174.60	6.388	
9,906.3	6,770.6	9,866.1	6,849.0	88.6	87.3	94.04	196.6	2,956.9	1,115.3	940.4	174.95	6.375	
10,000.0	6,770.0	9,926.9	6,848.5	91.2	89.0	94.02	195.8	3,017.7	1,116.6	937.4	179.20	6.231	
10,100.0	6,769.4	10,000.0	6,847.7	93.9	91.0	93.99	192.2	3,090.7	1,121.3	937.3	183.97	6.095	
10,200.0	6,768.8	10,052.7	6,847.2	96.7	92.5	93.97	187.9	3,143.2	1,129.0	940.9	188.18	6.000	
10,300.0	6,768.2	10,115.1	6,846.6	99.4	94.2	93.93	181.0	3,205.2	1,140.1	947.5	192.66	5.918	
10,400.0	6,767.5	10,201.0	6,845.8	102.2	96.5	93.88	169.2	3,290.3	1,153.8	956.0	197.78	5.834	
10,500.0	6,766.9	10,300.0	6,844.8	104.9	99.3	93.81	155.4	3,388.4	1,167.7	964.4	203.28	5.744	
10,600.0	6,766.3	10,399.0	6,843.8	107.7	102.0	93.75	141.6	3,486.4	1,181.5	972.8	208.77	5.659	
10,700.0	6,765.7	10,498.1	6,842.9	110.4	104.7	93.69	127.8	3,584.5	1,195.4	981.1	214.27	5.579	
10,800.0	6,765.1	10,597.1	6,841.9	113.2	107.4	93.63	114.0	3,682.5	1,209.3	989.5	219.78	5.502	
10,900.0	6,764.5	10,696.1	6,840.9	115.9	110.2	93.57	100.2	3,780.6	1,223.1	997.8	225.29	5.429	
11,000.0	6,763.9	10,809.8	6,838.9	118.7	116.1	93.47	78.7	3,993.1	1,234.1	1,000.1	233.99	5.274	
11,100.0	6,763.3	11,067.2	6,837.3	121.5	120.5	93.44	76.6	4,150.5	1,234.8	993.6	241.14	5.121	
11,200.0	6,762.7	11,167.2	6,836.4	124.2	123.2	93.42	76.6	4,250.5	1,234.8	988.1	246.69	5.005	
11,300.0	6,762.1	11,267.2	6,835.4	127.0	126.0	93.40	76.7	4,350.5	1,234.7	982.5	252.25	4.895	
11,400.0	6,761.5	11,367.2	6,834.4	129.8	128.8	93.39	76.7	4,450.4	1,234.7	976.9	257.81	4.789	
11,500.0	6,760.9	11,505.5	6,833.1	132.5	132.7	93.37	78.1	4,588.7	1,233.8	969.4	264.43	4.666	
11,600.0	6,760.3	11,605.5	6,832.2	135.3	135.4	93.36	81.2	4,688.6	1,230.7	960.7	269.98	4.558	
11,700.0	6,759.6	11,705.4	6,831.2	138.1	138.2	93.35	84.3	4,788.5	1,227.6	952.0	275.54	4.455	
11,800.0	6,759.0	11,805.4	6,830.3	140.8	141.0	93.35	87.5	4,888.4	1,224.4	943.3	281.10	4.356	
11,900.0	6,758.4	11,905.3	6,829.3	143.6	143.8	93.34	90.6	4,988.3	1,221.3	934.7	286.66	4.261	
11,971.4	6,758.0	11,938.6	6,829.0	145.6	144.7	93.34	91.6	5,021.6	1,219.7	930.1	289.57	4.212	
11,971.6	6,758.0	11,938.6	6,829.0	145.6	144.7	93.34	91.6	5,021.6	1,219.7	930.1	289.57	4.212 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB-EST @ 4797.5usft (Original Well ECoordinates are relative to: KINZER 28H-212

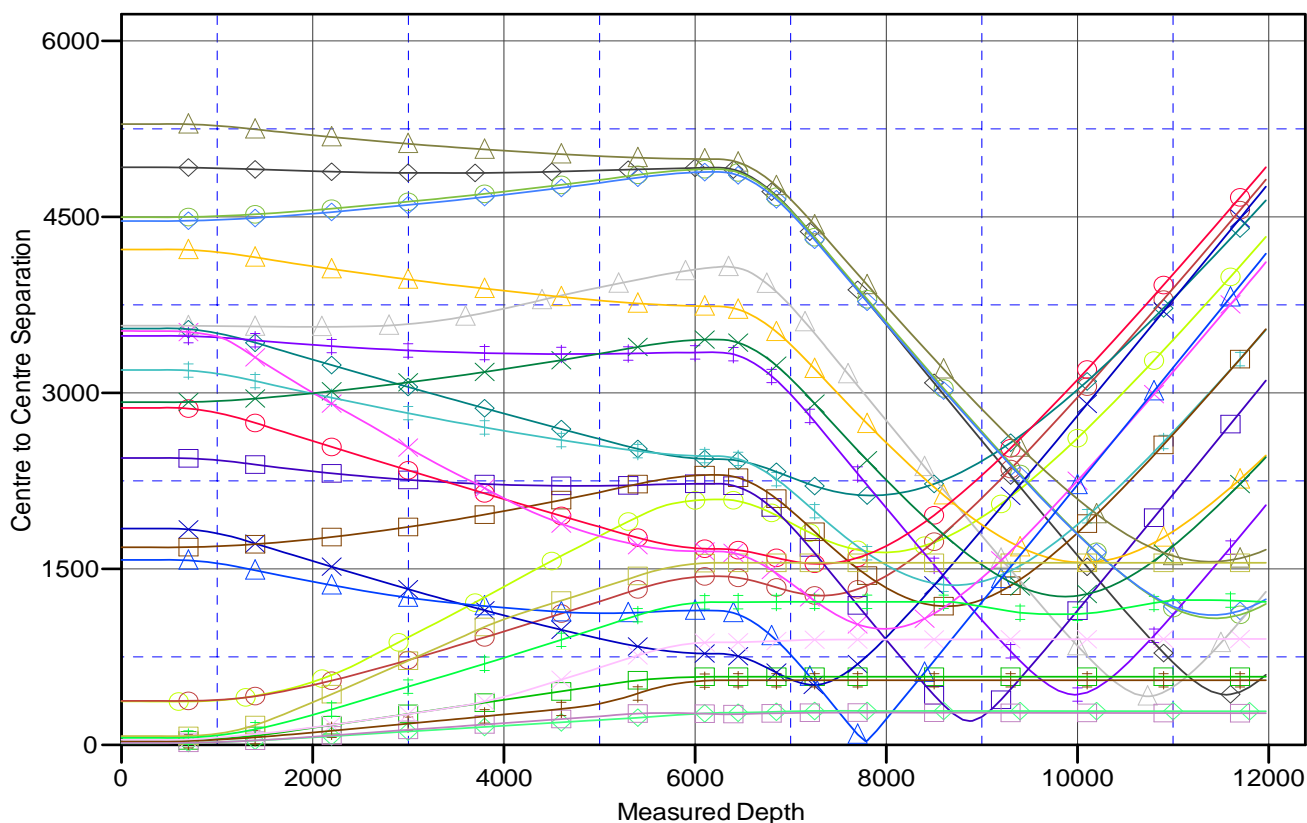
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.38°

## Ladder Plot



## LEGEND

Wellbore #1, Wellbore #1 V0  
Wellbore #1, Design #1 V0  
Wellbore #1, Wellbore #1 V0  
Wellbore #1, Design #1 V0  
Wellbore #1, Design #1 V0  
Wellbore #1, Design #1 V0  
Wellbore #1, Design #1 V0  
Wellbore #1, Design #1 V0  
Wellbore #1, Design #1 V0  
Wellbore #1, Design #1 V0

EXIST VERT KINZER 13-28, Wellbore #1, Design #1 V0  
EXIST VERT ROGER 1, Wellbore #1, Design #1 V0  
EXIST VERT MELLON 28-2, Wellbore #1, Design #1 V0  
EXIST VERT KIZNER 28-1, Wellbore #1, Design #1 V0  
ABDN VERT OSTER POOLING UNIT #1, Wellbore #1, Design #1 V0  
EXIST DD KINZER 28KD, Wellbore #1, Wellbore #1 V0  
EXIST VERT BINDER 15-28, Wellbore #1, Design #1 V0  
EXIST VERT KINZER 28B, Wellbore #1, Wellbore #1 V0  
EXIST VERT HELEN 1, Wellbore #1, Design #1 V0

KINZER 28G-232, ORIGINAL WEL  
KINZER 28G-332, ORIGINAL WEL  
KINZER 28H-202, ORIGINAL WEL  
KINZER 28H-302, ORIGINAL WEL  
KINZER 28H-432, ORIGINAL WEL  
KINZER 28I-202, ORIGINAL WEL  
KINZER 28I-312, ORIGINAL WEL



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-212
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28H-212	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB-EST @ 4797.5usft (Original Well ECoordinates are relative to: KINZER 28H-212

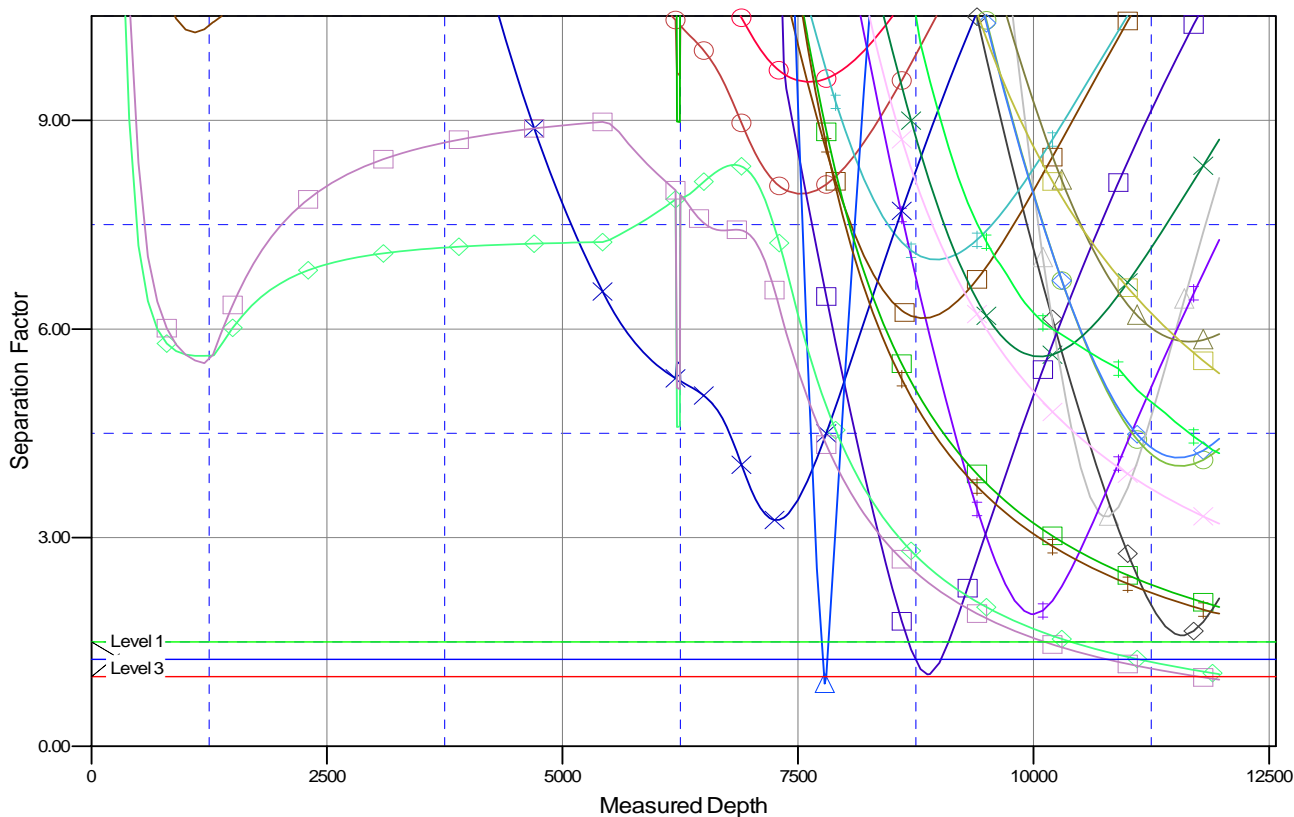
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.38°

## Separation Factor Plot



### LEGEND

Wellbore #1, Wellbore #1 V0	✱ EXIST VERT KINZER 13-28, Wellbore #1, Design #1 V0	✱ KINZER 28G-232, ORIGINAL WEL
Wellbore #1, Design #1 V0	✱ EXIST VERT ROGER 1, Wellbore #1, Design #1 V0	✱ KINZER 28G-332, ORIGINAL WEL
Wellbore #1, Wellbore #1 V0	✱ EXIST VERT MELLON 28-2, Wellbore #1, Design #1 V0	✱ KINZER 28H-202, ORIGINAL WEL
Wellbore #1, Design #1 V0	✱ EXIST VERT KIZNER 28-1, Wellbore #1, Design #1 V0	✱ KINZER 28H-302, ORIGINAL WEL
Wellbore #1, Design #1 V0	✱ ABDN VERT OSTER POOLING UNIT #1, Wellbore #1, Design #1 V0	✱ KINZER 28H-432, ORIGINAL WEL
Wellbore #1, Design #1 V0	✱ EXIST DD KINZER 28KD, Wellbore #1, Wellbore #1 V0	✱ KINZER 28I-202, ORIGINAL WEL
Wellbore #1, Design #1 V0	✱ EXIST VERT BINDER 15-28, Wellbore #1, Design #1 V0	✱ KINZER 28I-312, ORIGINAL WEL
Wellbore #1, Design #1 V0	✱ EXIST VERT KINZER 28B, Wellbore #1, Wellbore #1 V0	
Wellbore #1, Design #1 V0	✱ EXIST VERT HELEN 1, Wellbore #1, Design #1 V0	